# RAJIV GANDHI UNIVERSITY OF HEALTH SCIENCES

## BANGALORE

### SYLLABUS OF AYURVEDACHARYA (BAMS) COURSE

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### PADARTHA VIGYAN EVUM AYURVEDA ITIHASA

(Philosophy and History of Ayurveda)

Padartha Vigyanam

Theory- Two papers– 200 marks (100 each paper)
Total teaching hours: 100 hours

**PAPER-I**

**PART A**

1. Ayurveda Nirupana

1. Lakshana of Ayu, composition of Ayu.
2. Lakshana of Ayurveda.
3. Lakshana and classification of Siddhanta.
4. Introduction to basic principles of Ayurveda and their significance.

2. Ayurveda Darshana Nirupana

1. Philosophical background of fundamentals of Ayurveda.
Etymological derivation of the word “Darshana”. Classification and general introduction to schools of Indian Philosophy with an emphasis on: Nyaya, Vaisheshika, Sankhya and Yoga.

2. Ayurveda as unique and independent school of thought (philosophical individuality of Ayurveda).
3. Padartha: Lakshana, enumeration and classification, Bhava and Abhava padartha, Padartha according to Charaka (Karana-Padartha).

3. Dravya Vigyaniyam

1. **Dravya**: Lakshana, classification and enumeration.
2. **Panchabhuta**: Various theories regarding the creation (theories of TaittiriyoPanishad, Nyaya-Vaisheshika, Sankhya-Yoga, Sankaracharya, Charaka and Susruta), Lakshana and qualities of each Bhoota.
3. **Kaala**: Etymological derivation, Lakshana and division / units, significance in Ayurveda.
4. **Dik**: Lakshana and division, significance in Ayurveda.
5. **Atma**: Lakshana, classification, seat, Gunas, Linga according to Charaka, the method / process of knowledge formation (*atmanah jnasya pravrittih*).
6. **Purusha**: as mentioned in Ayurveda - Ativahikapurusha/ Sukshmasarira/ Rashipurusha/ Chikitsapurusha/ Karmanapurusha/ Shaddhatvatmakapurusha.
7. **Manas**: Lakshana, synonyms, qualities, objects, functions, dual nature of mind (*ubhayaatmakatvam*), as a substratum of diseases, penta-elemental nature (*panchabhutatmakatvam*).
8. Role of Panchamahabhuta and Triguna in Dehaprakriti and Manasaprakriti respectively.
9. Tamas as the tenth Dravya.
10. Practical study/application in Ayurveda

PART B

4. Gunavigyaniyam

1. Etymological derivation, classification and enumeration according to Nyaya-Vaisheshika and Charaka, Artha, Gurvadiguna, Paradiguna, Adhyatmaguna.
2. Lakshana and classification of all the 41 gunas.
3. Practical / clinical application in Ayurveda.

5. Karma Vigyaniyam

1. Lakshana, classification in Nyaya.
2. Description according to Ayurveda.
3. Practical study/ application in Ayurveda.
6. Samanya Vigyaniyam

6.1 Lakshana, classification.
6.2 Practical study/ application with reference to Dravya, Guna and Karma.

7. Vishesha Vigyaniyam

1. Lakshana, classification.
2. Practical study/ application with reference to Dravya, Guna and Karma.
3. Significance of the statement “Pravrittirubhayasya tu”.

8. Samavaya Vigyaniyam

8.1 Lakshana
8.2 Practical study /clinical application in Ayurveda.

9. Abhava Vigyaniyam

9.1 Lakshana, classification
9.2 Clinical significances in Ayurveda.

PAPER-I Padartha Vigyan and Ayurveda Itihas 100 marks
PART A 75 marks

Pariksha

1. Definition, significance, necessity and use of Pariksha.
2. Definition of Prama, Prameya, Pramata, Pramana.
3. Significance and importance of Pramana, Enumeration of Pramana according to different schools of philosophy.
4. Four types of methods for examination in Ayurveda (Chaturvidha-Parikshavidhi), Pramana in Ayurveda.
5. Subsudation of different Pramanas under three Pramanas.
6. Practical application of methods of examination (Parikshavidhi) in treatment (Chikitsa).

- Aptomdesha Pariksha/ Pramana
  - Lakshana of Aptomadesha, Lakshana of Apta.
  - Lakshana of Shabda, and its types.
  - Vaakya: Characteristics, Vaakyarthagyanahetu- Aakanksha, Yogyata, Sannidhi.
1. **Pratyaksha Pariksha/ Pramana**
   1. Lakshana of Pratyaksha, types of Pratyaksha- Nirvikalpaka- Savikalpaka with description, description of Laukika and Alaukika types and their further classification.
   2. Indriya-prapyakaritvam, six types of Sannikarsha.
   3. Indriyanam lakshanam, classification and enumeration of Indriya. Description of Panchapanchaka, Penta-elemental nature of Indriya by Panchamahabhuta (Panchabhautikatwa of Indriya) and similarity in sources (Tulyayonitva) of Indriya.
   4. Trayodasha Karana, dominance of Antahkaran.
   5. Hindrances in direct perception (pratyaksha-anupalabdhikaaran), enhancement of direct perception (Pratyaksha) by various instruments/ equipments, necessity of other Pramanas in addition to Pratyaksha.
   6. Practical study/ application of Pratyaksha in physiological, diagnostic, therapeutics and research grounds.

1. **Anumanapariksha/Pramana**
   2. Characteristic and types of Vyapti.
   3. Lakshana and types of Hetu, description of Ahetu and Hetwabhasa.
   4. Characteristic and significance of Tarka.
   5. Practical study/ application of Anumanapramana in physiological, diagnostic, therapeutics and research.

**Yuktipariksha/ Pramana**

1. Lakshana and discussion.
2. Importance in Ayurveda.
3. Practical study and utility in therapeutics and research.

6. **Upamana Praamana**
   1. Lakshana.

2. Application in therapeutics and research.

1. **Karya- Karana Siddhanta (Cause and Effect Theory)**
   1. Lakshana of Karya and Karana. Types of Karana.
   2. Significance of Karya and Karana in Ayurveda.
PART B- Ayurveda Itihasa

1. Etymological derivation (Vyutpatti), syntactical derivation (Niruktti) and definition of the word Itihas, necessity of knowledge of history, its significance and utility, means and method of history, historical person (Vyakti), subject (Vishaya), time period (Kaal), happening (Ghatana) and their impact on Ayurveda.

2. Introduction to the authors of classical texts during Samhitakaal and their contribution: Atreya, Dhanwantari, Kashyapa, Agnivesha, Sushruta, Bhela, Harita, Charaka, Dridhabala, Vagbha, Nagarjuna, Jivaka.

1. Introduction to the commentators of classical Samhitas – Bhattaraharicchandra, Jejjata, Chakrapani, Dalhana, Nishchalakara, Vijayarakshita, Gayadas, Arunadutta, Hemadri, Gangadhara, Yogindranath Sen, Haranachandra, Indu.

2. Introduction to the authors of compendiums (Granthasamgrahakaala) – Bhavmishra, Sharngadhara, Vrinda, Madhavakara, Shodhala, Govinda Das (Author of Bhaishajyaratnawali), Basavraja.

3. Introduction to the authors of Modern era – Gana Nath Sen, Yamini Bhushan Rai, Shankar Dajishastri Pade, Swami Lakshmiram, Yadavji Tikramji, Dr. P. M. Mehta, Ghanekar, Damodar Sharma Gaur, Priyavrat Sharma.


5. Developmental activities in Ayurveda in the post-independence period, development in educational trends.

6. Establishment of different committees, their recommendations.

7. Introduction to and activities of the following Organizations :- Department of AYUSH, Central Council of Indian Medicine, Central Council for Research in Ayurvedic Sciences, Ayurvedic Pharmacopeia commission, National Medicinal Plants Board, Traditional Knowledge Digital Library (TKDL)

8. Introduction to the following National Institutions:


10. IPGT&RA, Gujarat Ayurved University, Jamnagar.

11. Faculty of Ayurved, BHU, Varanasi.


15. Introduction to activities of WHO in the promotion of Ayurveda.
Reference Books:-

A). Padartha Vigyan:-
1. Padarthavigyan Acharya Ramraksha Pathak
2. Ayurvediya Padartha Vignaya Vaidya Ranjit Rai Desai
3. Ayurved Darshana Acharya Rajkumar Jain
4. Padartha Vigyana Kashikar
5. Padartha Vigyana Balwant Shastri
6. Sankhyatantwa Kaumadi GajananS hastri
7. Psycho Pathology in Indian Medicine Dr. S.P. Gupta
8. Charak Evum Sushrut ke Prof. Jyotirmitra Acharya Darshan Vishay ka Adhyayan
9. Ayurvediya Padartha Vignaya Dr. Ayodhya Prasad Achal
10. Padartha Vigyana Dr. Vidyaadhar Shukla
11. Padartha Vigyana Dr. Ravidutta Tripathi
12. Ayurvediya Padartha Vigyana Vaidya Ramkrishna Sharma Dhand
13. Ayurvediya Padartha Vignyan Parichaya Vaidya Banwarilal Gaur
14. Ayurvediya Padartha Darshan Pandit Shivhare

15. Scientific Exposition of Ayurveda Dr. Sudhir Kumar
16. Relevant portions of Charakasamhita, Sushrutasamhita.

B) History of Ayurveda:-
1. Upodghata of Kashyapasamhita Rajguru Hem Raj Sharma
   Paragraph of acceptance of Indian medicine Vaidy Hariprapanna Sharma
2. Upodghata of Rasa Yogasagar KaviraSuram Chand
3. Ayurveda Ka Itihas Rajvaidya Ram Prasad Sharma
4. Ayurveda Sutra Dr. GirindrNath Mukhopadhyaya
5. History of Indian Medicine (1-3 part) Bhagwat Singh
6. A Short history of Aryan Medical Science J. Jolly
7. History of Indian Medicine Zimer
8. Hindu Medicine Filiyosa
9. Classical Doctrine of Indian Medicine
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<td>An Appraisal of Ayurvedic Material in Buddhist literature</td>
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<td>Mahayana Granthon mein nihita</td>
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PART A

SAMSKRUTA VYAKARANA ADYAYANAM

1. Sangna prakaranam
2. Vibhaktyartha
3. Sandhi prakaranam (sandhi vicchedah, sandhi karanam)
4. Shadlinga prakaranam (shabdha roopanyevah)
5. Dhatu prakaranam (dhatu roopanyeva) (bhavadiganeeya dhatunam pancha latt, lott, langlatt, vidhi linga lakaareshu roopani)
6. Vachya prayogah (kartari karmani bhava vachya prayogah)
7. Samaasa prakaranam
8. Pratyayah (nich, ktha, kthavathu, shat, shaanach, thumun, thavyath, thuch, kthwa, lyup, lyut, aneeyar, mathup, ini, than, ithach, ann, ing, ik, thwa, tha, shan, imm, nich, thah, thra, daa, tharap, thamap, thaap, gnaap)

From English/hindi /Regional language to Sanskrit
From Sanskrit to English/hindi/Regional language
Identification and correction of grammatical errors in the given sentences

The sentences for translation should be selected from the under mentioned reference books.

Laghu siddanta kaumudhi – Acharya Varadaraja
(commentary by Sri Dhananand shastri)
Brihat trayee (Charak samhita, Sushrut samhita, astanga hrudaya)
Anuvada chandrika – Chakradhara, hansa, Nautiyal.
4. sanskruta ayurveda sudha – Dr Banwari Lal Gaur
5. rachananuvada kaumudi–Dr Kapildev Dwivedi

PART –B 50 MARKS

BHASHADHYAYANAM.

1.) Ayurveda grantha adhyayana karma;–Stepwise method of study of Ayurveda Arsha Granthas (Susrutha Samhitha shareera sthana, chapter 4)
2.) Vaidyakiya subhashitha sahityam (adhyaya: 1-10)
3.) Panchatantram-aparikshitakarakam (kshapanaka kathathaha murkhapanditha kathaparyantham pancha kathaha)

REFERENCE BOOKS –

1) Susruta samhita, shareera sthana, chapter-4
2) Prabhashanam work book, su.sam.chap-4 published by AYUEVEDA ACADEMY BANGLORE

Email: ayuacademy@gmail.com.
3) Vaidyakeeya subhashita sahityam–Dr. Bhaskar Govinda Ghanekar.
4) Panchatantra-(Apareekshitakarakam)-pt. Vishnu Sharma
1.3 KRIYA SHAREERA
(PHYSIOLOGY)

Two Papers-200 Marks (100 marks each)
Practicals-100 marks
Teaching hours-325 hours
Theory-175 hrs
Practicals-150 hrs

100 marks

PAPER- I

PART A

50 marks

1. Conceptual study of fundamental principles of Ayurvediya Kriya Sharir e.g - Panchamahabhuta, Tridosha, Triguna, Loka-Purusha Samya, Samanya-Visheshya. Description of basics of Srotas.
3. Dosha- General description of Tridosha. Inter relationship between Ritu-Dosha-Rasa-Guna. Biological rhythms of Tridosha on the basis of day-night-age-season and food intake. Role of Dosha in the formation of Prakriti of an individual and in maintaining of health. Prakrita and Vaikrita Dosha.
4. Vata Dosha: Vyutpatti (derivation), Nirukti (etymology) of the term Vata, general locations, general properties and general functions of Vata, five types of Vata (Prana, Udana, Samana, Vyana, Apana) with their specific locations, specific properties, and specific functions.

Respiratory Physiology in Ayurveda, Physiology of speech in Ayurveda.

- Pitta Dosha: Vyutpatti, Nirukti of the term Pitta, general locations, general properties and general functions of Pitta, five types of Pitta (Pachaka, Ranjaka, Alochaka, Bhrajaka, Sadhaka) with their specific locations, specific properties, and specific functions. Similarities and differences between Agni and Pitta.
- Kapha Dosha: Vyutpatti, Nirukti of the term Kapha, general locations, general properties and general functions of Kapha, five types of Kapha (Bodhaka, Avalambaka, Kledaka, Tarpaka, Sleshaka ) with their specific locations, specific properties, and specific functions.

1. Etiological factors responsible for Dosha Vriddhi, Dosha Kshaya and their manifestations.
2. Concept of Kriyakala.
3. Prakriti:
9. Agni – Definition and importance, synonyms, classification, location, properties and functions of Agni and functions of Jatharagni, Bhutagni, and Dhatvagni.

PART- B 50 marks
Modern Physiology

2. Resting membrane potential and action potential.
4. Physiology of Nervous System: General introduction to nervous system, neurons, mechanism of propagation of nerve impulse, physiology of CNS, PNS, ANS; physiology of sensory and motor nervous system, Functions of different parts of brain and physiology of special senses, intelligence, memory, learning and motivation. Physiology of sleep and dreams, EEG. Physiology of speech and articulation. Physiology of temperature regulation.
5. Functional anatomy of gastro-intestinal tract, mechanism of secretion and composition of different digestive juices. Functions of salivary glands, stomach, liver, pancreas, small intestine and large intestine in the process of digestion and absorption. Movements of the gut (deglutition, peristalsis, defecation) and their control. Enteric nervous system.

Vitamins & Minerals- sources, daily requirement, functions, manifestations of hypo and hypervitaminosis.
PAPER-II

PART A

1. **Dhatu:**

   Etymology, derivation, definition, general introduction of term Dhatu, different theories related to Dhatuposhana (Dhatuposhana Nyaya)

2. **Rasa Dhatu:**

   Etymology, derivation, location, properties, functions and Praman of Rasa-dhatu. Physiology of Rasavaha Srotas, Formation of Rasa Dhatu from Aahara Rasa, circulation of Rasa (Rasa-Samvahana), role of Vyana Vayu and Samana Vayu in Rasa Samvahana. Description of functioning of Hridaya. Ashtavidha Sara (8 types of Sara), characteristics of Tvakasara Purusha, conceptual study of mutual interdependence (Aashraya-Aashrayi Bhaava) and its relation to Rasa and Kapha. Manifestations of kshaya and Vriddhi of Rasa.

3. **Rakta Dhatu:**

   Etymology, derivation, synonyms, location, properties, functions and Praman of Rakta Dhatu. Panchabhatiakatva of Rakta Dhatu, physiology of Raktavaha Srotas, formation of Raktadhata, Ranjana of Rasa by Ranjaka Pitta, features of Shuddha Rakta, specific functions of Rakta, characteristics of Raktasara Purusha, manifestations of Kshaya and Vriddhi of Raktadhata, mutual interdependence of Rakta and Pitta.

4. **Mamsa Dhatu:**
Etymology, derivation, synonyms, location, properties and functions of Mamsa Dhatu, physiology of Mamsavaha Srotasa, formation of Mamsa Dhatu, characteristics of Mamsasara Purusha, manifestations of Kshaya and Vriddhi of Mamsa Dhatu. Concept of Peshi.

5. Meda Dhatu:
Etymology, derivation, location, properties, functions and Praman of Meda Dhatu, physiology of Medovaha Srotas, formation of Medo Dhatu, characteristics of Medasara Purusha and manifestations of Kshaya and Vriddhi of Meda.

6. Asthi Dhatu:
Etymology, derivation, synonyms, location, properties, functions of Asthi Dhatu. Number of Asthi. Physiology of Asthivaha Srotas and formation of Asthi Dhatu, characteristics of Asthisara Purusha, mutual interdependence of Vata and Asthi Dhatu, manifestations of Kshaya and Vriddhi of Asthi Dhatu.

7. Majja Dhatu:
Etymology, derivation, types, location, properties, functions and Praman of Majja Dhatu, physiology of Majjavaha Srotas, formation of Majja Dhatu, characteristics of Majja Sara Purusha, relation of Kapha, Pitta, Rakta and Majja, manifestations of Kshaya and Vriddhi of Majja Dhatu.

8. Shukra Dhatu:
Etymology, derivation, location, properties, functions and Praman of Shukra Dhatu, physiology of Shukraravaha Srotas and formation of Shukra Dhatu. Features of Shuddha Shukra, characteristics of Shukra-Sara Purusha, manifestations of Kshaya and Vriddhi of Shukra Dhatu.

9. Concept of Ashraya-Ashrayi bhava i.e. inter-relationship among Dosha, Dhatu Mala and Srotas.


11. Upadhatu: General introduction, etymological derivation and definition of the term Upadhatu. Formation, nourishment, properties, location and functions of each Upadhatu.
14. **Tvak**: classification, thickness of each layer and functions.

14. **Mala**: Etymological derivation and definition of the term Mala. **Aharamala**: Enumeration and description of the process of formation of Aharamala.

15. **Purisha**: Etymological derivation, definition, formation, properties, quantity and functions of Purisha. Physiology of Purishavaha Srotas, manifestations of Vriddhi and Kshhaya of Purisha.

16. **Mutra**: Etymological derivation, definition, formation, properties, quantity and functions of Mutra. Physiology of Mutravaha Srotas, physiology of urine formation in Ayurveda, manifestations of Vriddhi and Kshhaya of Mutra.


18. **Dhatumala**: Brief description of each type of Dhatumala.


19. **Manas**: Etymological derivation, definition, synonyms, location, properties, functions and objects of Manas. Physiology of Manovaha Srotas.

20. **Atma**: Etymological derivation, definition, properties of Atma. Difference between Paramatma and Jivatma; Characteristic features of existence of Atma in living body.

21. **Nidra**: Nidrotpatti, types of Nidra, physiological and clinical significance of Nidra; Svatnotpatti and types of Svapna.

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**PART –B**

**50 marks**

**Modern Physiology**

Haemopoetic system – composition, functions of blood and blood cells, Haemopoiesis (stages and development of RBCs, and WBCs and platelets), composition and functions of bone marrow, structure, types and functions of

---

1. haemoglobin, mechanism of blood clotting, anticoagulants, physiological basis of blood groups, plasma proteins, introduction to anaemia and jaundice.

2. Immunity, classification of immunity: Innate, acquired and artificial. Different mechanisms involved in immunity: Humoral (B-cell mediated) and T-Cell mediated immunity. Hypersensitivity.

3. Muscle physiology – comparison of physiology of skeletal muscles, cardiac muscles and smooth muscles. Physiology of muscle contraction.

5. Adipose tissue, lipoproteins like VLDL, LDL and HDL triglycerides.
6. Functions of skin, sweat glands and sebaceous glands.
7. Physiology of male and female reproductive systems. Description of ovulation, spermatogenesis, oogenesis, menstrual cycle.
9. Endocrine glands – General introduction to endocrine system, classification and characteristics of hormones, physiology of all endocrine glands, their functions and their effects.

PRACTICAL

Ayurvedic practical

1. Assessment of Prakriti
2. Assessment of Dosha (Features of Vridhhi- Kshaya )
3. Assessment of Dhatu (Features of Vridhhi- Kshaya)
4. Assessment of Agni
5. Assessment of Koshtha
6. Assessment of Sara
7. Nadi pariksha

Modern physiology practical

1. Introduction to laboratory instruments- Simple & Compound Microscope, Scalp vein set, bulbs for blood collection, Sahli’s Haemometer, Haemocytometer, pipettes, Urinometer, Albuminometer, Stethoscope, B.P. Apparatus, Harpenden’s caliper, Clinical Hammer, Tuning Fork, Stop Watch, Thermometer, Centrifuge machine, ECG Machine
2. Collection of blood sample – prick, vene-puncture method, use of anticoagulants
3. Preparation of blood smear and staining
4. Estimation of Hemoglobin
5. Microscopic examination of blood

   a. Total RBC count
   b. Total WBC count
   c. Differential leucocytes count
6. Packed cell volume (PCV) demonstration
   - ESR demonstration
   - Bleeding time, Clotting time
1. Blood grouping and Rh typing
2. Examination of Cardio-Vascular system
   - Pulse examination
   - Arterial blood pressure measurement
   - Examination of heart sounds
   - ECG demonstration

11. Examination of Respiratory system
   - Respiratory rate
   - Breath sounds
   - Spirometry

12. Examination of Nervous System- Sensory & Motor.

Distribution of Practical marks

- Laboratory Practical - 20
- Human Experiment - 15
- Spotting - 15
- Prakriti Saradi pariksha - 20
- Practical Record - 10
- Viva- voce - 20

REFERENCE BOOKS:-

- Ayurvediya Kriyasharir - Ranjit Rai Desai
- Kayachikitsa Parichaya - C. Dwarkanath
- Prakrit Agni Vigyan - C. Dwarkanath
- Sharir Kriya Vigyan - Shiv Charan Dhyani
- Abhinava Sharir Kriya Vigyana - Acharya Priyavrata Sharma
- Dosha Dhatu Mala Vigyana - Shankar Gangadhar Vaidya
- Prakrita Dosha Vigyana - Acharya Niranjana Dev
- Tridosha Vigyana - Shri Upendranath Das
- Sharira Tatva Darshana - Hirlekar Shastri
- Prakrita Agni Vigyana - Niranjana Dev
- Deha Dhatvagni Vigyana - Vd. Pt. Haridatt Shastri
- Sharir Kriya Vigyana (Part 1-2) - Acharya Purnchandra Jain
1.4 RACHANA SHAREERA
(ANATOMY)

Theory- Two Papers-200 Marks–(100 marks each)
Practicals-100 marks
Teaching Hours-425 hours
Theory-225 hrs
Practicals-200 hrs
1. Shariropkramaniya Shaarira
Sharira and shaarira vyakhya (definitions of sharira and shaarira), shadangatvam (six regions of the body), anga pratyanga vibhaga (sub divisions). Mrita sharir samshodhan. Shaarira shastra vibhaga, shaarira gyan prayojana . Constitution of purusha according to dhatubhedā, panchabhautikatvam, trigunatmakatvam, tridoshamayatvam, karma purusha, and doshadhatumala-mulakatvam.

2. Paribhasha Shaarira
Kurcha, kandara, jala, asthisanghat, seemanta, seevani, rajju, snayu and lasika.

3. Garbha Shaarira
Garbha definitions, explanation of shukra, artava, garbhadhana. Role of tridosha and panchmahabhuta in the fetal development. Beeja, beejabhaga and beejabhagavayava, linga vinischaya, masanumasika garbha vriddhi-krama, garbhotpadakbhava, garbhavriddhikara bhava, garbha poshana, apara nirmana, nabhinadi nirmana. Aanga pratyanga utpatti.


5. Asthi Shaarira
Asthi vyakhya, number, types, asthi swaroopa, vasa, meda and majja.

6. Sandhi Shaarira
Sandhi vyakhya, numbers, types of asthi sandhi.

7. Sira, Dhamani, Srotas Shaarira
   - Definition, types and number of sira and dhamani.
   - Description of Hridaya.
   - Sroto shaarira: Definition, types of srotas and srotomula.

8. Peshi Shaarira

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1. Peshi vyakhyā, structure, types, number and importance.
2. Description of Peshi.
9. Koshtha Evam Ashaya Shaarira

3. Definition of koshtha and number of koshthanga.
4. Types and description of ashaya.

10. Kalaa Shaarira
Kalaa: definition and types.

11. Uttamangiya Shaarira
Shatchakra, ida, pingala and sushumna nadi - brief description.

12. Marma Shaarira
Marma: definition, number, location, classification, clinical importance with viddha lakshana. Explanation of trimarmas. Detail description of marmas.

13. Indriya Shaarira
Definition of indriya, indriya artha and indriya adhishthan, their number and importance. Description of gyanendria, karmendriya and ubhayendriya (manas).

PART-B

1. Definition and branches of anatomy. Preservation methods of the cadaver.

2. Anatomical Terminologies
Anatomical position, Planes, and explanation of anatomical terms related to skin, fasciae, bones, joints and their movements, muscles, ligaments, tendons, blood vessels, nerves.

3. Embryology

4. Osteology
Bone: Definition, ossification, structure and types. Description of bones with clinical anatomy.

5. Arthrology
Joints: Definition, structure types and movements. Description of joints of extremities, vertebral joints and temporomandibular joint with their clinical anatomy.

6. Cardiovascular system

1. Definition, types and structure of arteries and veins.
2. Description of heart and blood vessels with their course and branches.
3. Pericardium with applied aspect.
7. Lymphatic system
Definition, types and structure of lymph vessels, lymph glands with their clinical aspect.

8. Myology
a) Structure and types of muscles.

b) Description of muscles; their origin, insertion, actions, nerve supply and clinical anatomy.

PAPER-I

PART A

1. Respiratory System
1. Bronchial tree and lungs with their clinical aspects.
2. Respiratory tract: nasal cavity, pharynx, larynx, trachea, bronchial tree.
3. Pleura with its clinical aspects.
4. Diaphragm.

2. Digestive system
1. Organs of digestive tract (alimentary tract) with their clinical aspects.
2. Digestive glands: liver, spleen and pancreas.
3. Description of peritoneum with its clinical aspects.

3. Urinary System
Urinary tract: kidney, ureter, urinary bladder and urethra with their clinical aspects.

4. Reproductive system
a. Male Reproductive system: reproductive organs, tract and glands (prostate and seminal vesicles) with their clinical aspects.
b. Female reproductive system: reproductive organs, tract and glands with their clinical aspects.

5. Endocrinology
Definition, classification & description of endocrine glands (pituitary, thyroid, parathyroid, thymus and suprarenal glands) with clinical aspects.
PART B

6. Nervous System
Nervous system: definition, classification and its importance. Description of brain and spinal cord. Description of peripheral nervous system: cranial and spinal nerves, nerve plexuses, and autonomic nervous system. Formation and circulation of cerebrospinal fluid and blood supply of brain and spinal cord.

7. Sensory organs
Description of structures of eye, ear, nose, tongue and skin with their clinical aspects.

8. Surface and radiological anatomy
a. Study of radio-imaging of limbs, abdomen, pelvis and vertebral column with its clinical application.
b. Surface anatomy of thoracic and abdominal viscera.

PRACTICALS

1. Practical study of bones
2. Practical study of organs
3. Practical study of surface and radiological anatomy.

4. Shava vichhedana – detailed dissection of the whole body.
5. Practical study of location of marma
6. Demonstration of histology slides (10 slides)

Distribution of marks

1. Spotting - 20 marks
2. Dissected organs and histology slides - 20 Marks
3. Bones, joints, marma - 20 Marks
4. Surface & radiological anatomy - 10 Marks
5. Practical records - 10 Marks
6. Viva-Voce - 20 Marks
## Reference Books :-

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<tr>
<td>1</td>
<td>Brihat Shariram Vaidyaratna-</td>
<td>P.S. Varrier</td>
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<td>Manava Sharir (Revised Edition)-</td>
<td>Prof. Dinkar Govind Thatte</td>
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<td>Manava Bhruna Vigyana -</td>
<td>Prof. Dinkar Govind Thatte</td>
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<td>Manava Anga Rekhankan Vikrian -</td>
<td>Prof. Dinkar Govind Thatte</td>
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<td>Sharir Rachana Vigyan (English)-</td>
<td>Vaidya P.G. Athawale</td>
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<td>Manual of Practical Anatomy Cunnigham -</td>
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<td>8</td>
<td>Clinical Anatomy in Ayurveda -</td>
<td>Prof. D.G. Thatte &amp; Prof. Suresh Chandra</td>
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<td>Sharir Rachna Vigyan (English)-</td>
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<td>Prof. Dr. Giridhar M. Kanthi</td>
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<td>Regional Anatomy -</td>
<td>B. D. Chaurasia</td>
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<td>Rachana Sharir Vigyana -</td>
<td>Dr. Mahendra Sing</td>
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<td>Inderbir Singh</td>
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<td>16</td>
<td>Clinical Anatomy-</td>
<td>Richard S Snell</td>
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<td>17</td>
<td>Fundamentals of Human Anatomy-</td>
<td>Dr. Chakraborthy</td>
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<td>18</td>
<td>Human Osteology -</td>
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1.5 MAULIKA SIDDHANTA EVUM ASHTANGA HRIDAYA
(Basic Principles and Ashtang Hridaya- An ancient text of Ayurveda)

Theory- One Paper– 100 marks
Teaching Hours -150 hours

Part A
marks

Ashtang Hridaya Sutrasthana Adhyaya 1 to 15

Part B
marks

1. Ashtang Hridaya Sutrasthana Adhyaya 16 to 30
2. Description of Ashta Prakriti
3. Shashtra Lakshan (Tantra), Tantraguna, Tantradosha, Tachitalya, Arthasraya, Kalpana

Reference Books:

1. Astang Hridaya : Hindi commentary by Lalchanda Vaidya
2. Astang Hridaya : Hindi commentary by Vd. B.L. Gaur
3. Astang Hridaya : English commentary by Dr. T. Sreekumar
4. Astang Hridaya : English commentary by Dr. Vishwvasu Gaur
5. Astang Hridaya : Sanskrit commentary by Hemadri
6. Astang Hridaya : Sanskrit commentary by Arunadatta

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2.2. AGADTANTRA, VYAVAHAAR-AYURVED EVUM VIDHVIAIDYAK
(TOXICOLOGY, FORENSIC MEDICINE AND MEDICAL JURISPRUDENCE)

Theory One Paper – 100 Marks
Practical/Viva voce -50 Marks
Theory -200 hrs
Practical - 100 hrs

Part- A 50 Marks


2. Definition of toxicology, Definition of poison, suicidal and homicidal poisons, classification of poisons, their action and route of administration, absorption, excretion, metabolism, diagnosis and general principles of treatment, duties of a medical practitioner in case of suspected poisoning.


4. Tests for detection of Visha, and Modern Toxicological Techniques of detection of poisons
   Visha Data Lakshana, Visha Peeta Lakshana, Signs and symptoms of Visha afflicted organs and personal effects. (Poisoning with Anjana, Lepa paduka, Abharana etc.

5. Introduction to Environmental Toxicology- Samuhika Vishaprayoga- effect of chemical and nuclear warfare.

6. Vishopakrama described by Charak, General principles of Management of poisoning.

7. Manifestation of poisoning due to poisons of plant origin their fatal Dose, fatal period, management of poisoning, post mortem appearance and its medico legal importance.
   Visha and Upavisha- Arka, Snuhi, Langali, Karaveera, Gunja, Ahiphena, Dhattura, Bhallataka, Vatsanabha, Kupeelu, Jayapala, Bhanga & Tobacco, Parthenium hysterophorus, Chitraka, Eranda, Digitalis and Cerebra Odallam.


9. Jangama Visha – Detailed study of Sarpa, Keeta, Loota, Vrischika, Mooshika, Alarka – Visha; Lakshana, Bheda, Chikitsa and their Sadhyasadhhyata (contemporary and classical views),

10. Introduction to poisoning due to Acids, Alkalis, metals, Non-metals, Asphyxiants and others, their Fatal Dose, Fatal period, Manifestation, management, medico legal importance and postmortem appearance of poisoning due to
   a) Acid and Alkalis– Sulphuric acid, Hydrochloric acid, Nitric acid, Hydrocyanic acid, Oxalic acid, Carbolic acid, Formic acid, alkalis in general.
   b) Asphyxiants – Carbon monoxide, Carbon dioxide, Hydrogen sulphide
   c) Nonmetallic poisons – Phosphorous, Iodine
   Metallic poisoning – Arsenic, Mercury, Lead, Copper, Zinc, Tin.
   d) Others - Petroleum – Kerosene Organo phosphorus compounds - Aluminum phosphate, Organo Chlorinated Compounds, Household poisons.

11. Madya and Madatyaya. Alcohol poisoning (Ethanol and Methanol).

1. Definition of Vyavahara Ayurveda (Forensic medicine) and Vidhivaidyaka (Medical jurisprudence), concise history of Vyavahara Ayurveda (Forensic medicine) and Vidhivaidyaka (Medical jurisprudence). Introduction to Indian Penal Code, Indian Evidence Act and Criminal Procedure Code.


4. Death and its Medico Legal Aspects, Medico Legal autopsy and exhumation

5. Injuries and thermal injuries, their medico legal aspects, general introduction of weapons.

6. Dowry deaths (Domestic Violence), their Medico Legal importance and laws in relation to it.

7. Asphyxial deaths and its Medico Legal importance.


10. Introduction to Forensic psychiatry.

11. Introduction to forensic laboratory


**PRACTICAL**

**Practical Training**

1. Post Mortem examination
2. Evidence in the court
3. Demonstrations in the Forensic & Toxicology museum
   (Toxic & Anti toxic substances, medico legal specimens & Charts)
4. Clinical postings
5. Library Hours for compilation

**Distribution of Practical Marks**

1. Post Mortem examination and Court posting – Case Record 10 Marks
2. Practical/Clinical Record Book 10 Marks
3. Identification (spotting) 10 Marks
4. Viva – voce 20 Marks

**Total** 50 Marks

**Reference Books**

1. Topics related to Agada Tantra from Charak Samhita, Sushrut Samhita, Ashtanga Hridaya, Ashtanga Samgraha, Kasyapa Samhitha, Yogaratnakara, Bhavaprakasha and Madhava Nidana.
2. Vidhivaidyaka (Vyavahar Ayurveda Vijnan) Dr.Charuchandra Pathak
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<td>Medical Jurisprudence and Toxicology</td>
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<td>Dr. Shekher Namboodri</td>
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<td>Vaidya Balakrishnan Nair, Kerala</td>
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<td>Agadatantra ki Pathyapustaka</td>
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<td>(Ayurveda Toxicology English Translation)</td>
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<td>10</td>
<td>Medical Ethics and Medical Laws in India</td>
<td>Dr. H.S. Mehta</td>
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<td>11</td>
<td>Toxicology Ayurvedic Perspective</td>
<td>VPSV Ayurveda college Kottakkal</td>
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<td>Kautilya Arthashastra (English)</td>
<td>Prof. Kangle</td>
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<td>Kautilya Arthashastra (Hindi)</td>
<td>Dr. Raghunath Singh</td>
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<td>Vyavahar Ayurveda</td>
<td>Dr. Ayodhya Prasad Achal</td>
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<td>Vyavahar Ayurveda Vigyanam</td>
<td>Dr. Indramohan Jha (Sachchan)</td>
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<td>Textbook of Forensic Medicine and Toxicology</td>
<td>Dr. V.V. Pillay</td>
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<td>17</td>
<td>Forensic Medicine</td>
<td>Dr. B. Umadathan</td>
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2.4 CHARAKASAMHITA -PURVARDHA

(Sutrasthana, Nidanasthana, Vimanasthana, Sharirasthana and Indriyasthana)

Theory - One Paper– 100 Marks
Lectures – 200 Hours

Part A

1. Sutrasthana 40 Marks
2. Indriyasthana 10 Marks

Part B

1. Nidanasthana 15 Marks
2. Vimanasthana 20 Marks
3. Sharirasthana 15 Marks

Reference Books

2. Charakasamhita (Hindi Commentary): Vaidya Jayadev Vidyalankar or Vd. Atridev Vidyalankar or Prof. Gorakha Nath Chaturvedi & Kashinath Shastri or Dr. Brahmanand Tripathy or Dr. Ravi Dutta Tripathy

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2.1 DRAVYAGUNA VIJNAN

(PHARMACOLOGY & MATERIA MEDICA)

Lectures: 200 Hrs.
Practicals: 200 Hrs.
Total Marks -400

Theory Two Papers– 100 Marks Each
Practical/Viva voce – 200 Marks

Paper I

100 Marks

Part A

50 Marks

1- Dravyaguna Shastra Paribhasa- Lakshana of Sapta Padartha of Dravyaguna Vijnana viz Dravya- Rasa-Guna- Virya- Vipaka- Prabhava and Karma.

2- Dravya:
   Etymological derivation, definition, panchabhoutikatwa.
   Classification of Dravya according to Samhitas and Nighantus.
   Taxonomical classification.

3- Guna:
   Etymological derivation, definition and Classification of Guna.
   Detailed knowledge of Gurvadi Guna & Paradi gunas.

4- Rasa:
   Etymological derivation, definition, Meaning of “Rasa” in various contexts. Shad Rasas (Madhura, Amla, Lavana, Katu, Tikta, and Kashaya), Panchabhautik constitution of Rasas, Nirvrittiviseshakrama (manifestation in general and particular), Ritu and shad rasa Rasanurasayoh bheda (Difference between rasa and anurasa), Lakshana (characteristics),Guna and Karma of shad Rasas, Kopana and Shamana of Dosha and dushya by Shad rasas. Effects of excess usage of Rasa. Rasopalabdhi, Rasaskandha.

5- Vipaka:
   Etymological derivation and definition, difference between Avasthapaka and Vipaka, Types of Vipaka, (Dvividha-Trividha,Panchavidha) Guna and karma of Vipaka.
   Grades of Vipaka (taratamya), Vipakopalabdhi hetu (Factors to determineVipaka).

6- Veerya:
   Etymological derivation, definition and Swarupa of Virya, Number of Virya.
   (Dwividha & Ashtavidha), Panchabhauthikatva
   Virya karmani (Effects of Virya), General principles in determination of virya along with exceptions.
7- Prabhava:
   Definition, Effects of Prabhava.

8- Interrelation of Rasa-Guna-Virya-Vipaka-Prabhava with respect to their strength (balabal nirupana). Samanapratyayarabdha and Vichitrapratyayarabdha dravyas.

9- Karma:
   Lakshana, swaroopa and bheda of karma (Definition, nature and types of action).

Explanation of the following Karmas with examples:

1. Deepana  
2. Pachana  
3. Samshodhana  
4. Samshamana  
5. Anulomana  
6. Sransana  
7. Bhedana  
8. Rechana  
9. Chhedana  
10. Lekhana  
11. Grahi  
12. Sthambhana  
13. Madakari  
14. Pramath  
15. Abhishyandi  
16. Vyvayi  
17. Vikashi  
18. Rasayana  
19. Vajeekarana  
20. Jeevaneeya  
21. Balya  
22. Brimhana  
23. Langhana  
24. Medhya

10. Brief information on Karmas of dashemani gana of Charak Samhita.

11- Mishraka Gana:

11a)- Audbhida Gana (Vegetable origin) Brihatpanchamoola, Laghupanchamoola, Vallipanchamoola, Kantakapanchamoola, Trinapanchamoola, Madhyamapanchamoola, Jeevaneeya panchamoola, Panchapallava, Panchavalakala, Triphala, Trikatu, Trimada, Chaturusana, Panchakola, Shadusana, Chaturbeja, Jeevaniya gana, Ashtavarga, Trijataka, Chaturajataka, Katuchaturjataka, Panchatikta, Amlapanchaka, Chaturbhadra, Trikarshika, Swalatriphala, Madhuratrimphala, Mahavisha, Upavisha, Agrya aushadh varga- Knowledge of Agrayaushadha Varga with example.

11 b)- Jangama Gana (Animal origin)- Ksheerashtaka, Mutrashtaka, Pitta panchaka.

11 c)- Parthiva Gana (Mineral origin) - Lavana Panchaka, Kshara dvaya, Kshara Ashtaka.

12- Basis of nomenclature:
   Basis of nomenclature of dravya, Basis and Derivation of synonyms.

13. Bheashaja Pariksha vidhi (as described in Charaka samhita vimana sthana 8), Dravya Sangrahana (collection of dravya)- Ecology- Classification of desha (geographical area) and bhumi (soil), swarupa of sangrahaniya dravya of (Nature and quality of drug to be collected). Sangrahana vidhi (Method of collection) -Vegetable and Animal origin drugs according to part used. Period of collection according to virya, samrakshana vidhi (preservation of collected dravyas), bhashajagara (Storehouse), study on different prayojyanga (useful plant parts).
Part B 50 Marks

(i) 20 Marks

14 a) Concept of dravya shodhana (purification of dravya).
14 b) Brief knowledge of Apamishran (adulterants)
14 c) Concept of Abhava pratinidhi dravya (substitutes)
15- Prashasta bhesha (ideal drug), plant extracts. Concept of viruddha Dravya (incompatibility of the dravya).
16- Introduction to Nighantu Vigyan - Dhanwantari Nighantu, Bhavaprakashanighantu, Rajanighantu.
17- Brief knowledge of cultivation, conservation of medicinal plants and information about endangered species.

(II) 30 Marks

1-Detailed Knowledge of Following Dravya –
1- Detailed knowledge of following drugs with respect to Basonym of drug, Main Synonyms, Regional Name, Botanical Name, Family, Classification of Dravya (Gana) as described in Charak and Sushrut, External morphology, Useful parts, Important phytoconstituents, Rasa panchaka, Action on Dosha, Dhatu, Mala, Prayogarha vyadhi (therapeutic indications), Amayikaprayoga and Matra (Therapeutic administration and Dose), Vishishta yoga (names of important formulations), Vishakta Lakshan (adverse effects), Chikitsopachara (remedial measures) and Shodhana (as required)

[Alphabetical order and Botanical names to all the drugs are to be added]

1. Ahiphena
2. Agaru
3. Agnimantha
4. Prishniparni
5. Amalaki
6. Aragvadha
7. Apamarga
8. Ardraka-Sunti
9. Arjuna
10. Arkadvaya
11. Ashvagandha
12. Pushkarmoola
13. Asoka
14. Ativisha
15. Bakuchi
17. Bhallataka
18. Bharangi
19. Bhrungaraj
20. Bibhitaka
21. Bijak/ Vijaysar
22. Bilva
23. Brahmi
24. Bruhati
25. Chandanadvaya,
26. Chitraka
27. Dadima
28. Rohitaka
29. Mandukaparni.
30. Devadaru
31. Dhataki
32. Durva
33. Eladvayam
34. Eranda
35. Gambhari
36. Gokshura
37. Guduchi
38. Guggulu
39. Jambu
40. Haritaki
41. Hinga
42. Hariradvaya
43. Jatamansi
44. Jatiphal
45. Kapikacchu
46. Jyotishmati
47. Kalamegha
48. Jyotipila
49. Kampillaka
50. Kantakari
51. Kapikacchu
52. Kanchanara
53. Kanakadi
54. Katuki
55. Karkatakshringi
56. Karpura
57. Kumkum Kesara
58. Kupilu
59. Kutaja
60. Lavanga
61. Lodhra
62. Madanaphala
63. Manjishtha
64. Maricha
65. Musta
66. Nagakeshara
67. Nimba
68. Nirgundi
69. Palasha
70. Parpata
71. Patala
72. Pippali-Pippalimula
73. Rasna
74. Rasona
75. Pashanabheda
76. Kishta
77. Yavani
78. Sarivadvaya
79. Sarpagandha
80. Shalaparni
81. Manjishtha
82. Maricha
83. Vachadva
84. Pashanabheda
85. Vahris
86. Shalmali
87. Shigru
88. Shishra
89. Yastimadhu
90. Talisa Patra
91. Trivrut
92. Tulasi
93. Vaibhav
94. Trivrut
95. Vachadva
96. Vatsanabha
97. Vidari
98. Vidanga
99. Vidanga
100. Vidanga
**Part B-**

**II-** Brief Knowledge of following dravyas with Respect to Sanskrit Name, Botanical Name, Family, Habit (Samanya Swarupa), Parts Used and Indications.

<table>
<thead>
<tr>
<th>No.</th>
<th>Dravya</th>
<th>Sanskrit Name</th>
<th>Botanical Name</th>
<th>Family</th>
<th>Habit</th>
<th>Parts Used</th>
<th>Indications</th>
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<tr>
<td>38</td>
<td>Hrutpatri</td>
<td>39. Hribera</td>
<td>40. Indravaruni</td>
<td>41. Ingudi</td>
<td>42. Irimedea</td>
<td>43. Iśvari</td>
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<td>73</td>
<td>Langali</td>
<td>74. Latakaranja</td>
<td>75. Latakasturi</td>
<td>76. Madayantika</td>
<td>77. Markandika</td>
<td>78. Mahanima</td>
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<td>79</td>
<td>Mashayantika</td>
<td>80. Mayaphala</td>
<td>81. Masha</td>
<td>82. Matulunga</td>
<td>83. Methika</td>
<td>84. Meshashrungi</td>
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</tr>
</tbody>
</table>
III. Introduction, Guna, Karma and Uses of Following Jantava Dravya (Drugs of Animal Origin).

IV. Introductory Knowledge of Following Annapana Varga:
10. Aharayogi

PRACTICALS
1. A. Study of Macroscopic, Microscopic characters and Demonstration of organoleptic characteristics and grahya-agrhyatva of following plants and their useful parts. (specify)

(i) Kanda (stem) - Guduchi or Ashtishrinkhala
(ii) Patra (leaves) - Vasa or Kumari
(iii) Pushpa (flower and Parts of flower) - Dhataki or Japa
(iv) Phala (fruit) - Maricha or Madanaphala or Vidanga
(v) Beeja (seeds) - Eranda or Kapikacchhu
(vi) Twak (bark) - Kutaja or Arjuna or Ashwattha
(vii) Moola (Root) - Punarnava or Chitraka
(viii) Niryasa (exudate) - Guggulu or Mocharasa
(ix) Jangama dravya - Madhu or Ghrita.

B. records of Herbarium sheets of 50 medicinal plants.
(colour printout of 50 medicinal plant photo’s)
Compulsory study tour other state/s for field knowledge and procurement of plant Species.

2. compilation work
## PRACTICAL MARKS DIVISION

<table>
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<tr>
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<tr>
<td>1</td>
<td>Herbarium</td>
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<td>2</td>
<td>Practical record</td>
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</tr>
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<td>3</td>
<td>Drug identification- spotting –Raw/crude drugs</td>
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<td>4</td>
<td>Plant identification spotting –fresh</td>
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<td><strong>Total</strong></td>
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</table>

### Reference Books

1. Abhinav Buti Darpan (Vol.1-2) - Vd. Roop Lal Vaishya
2. Aushadna Vigyna Shastra - Acharya Pt. Vishvanatha Dwivedi
3. Ayurvediya Aushadnkarma vigyana - Acharya V.J. Thakur
4. Bedi Vanaspati Kosha - Prof. Ramesh Bedi
5. Bhaishajyaguna Vigyana - Dr. Alaknarayan Singh
6. Bhav Prakash Nigantu (English) - Shreemant Chuni Chandrashekar
7. Bhav Prakash Nigantu - With Vd. Krishna Chandra Chunekar commentary
8. Bhrinad dravyagunadarsha - Mahendra Kumar Shastri
9. Classical Uses of Medicinal Plants - Acharya Priyavrata Sharma
10. Controversial Medicinal Plants - Vd. G. Bapa Lal
11. Dalhana Ka Dravyaguna Shastra Ke Kshetra Me Yogadana - Vd. Shiv Kumar Vyas
12. Dravyaguna Kosha - Acharya Priyavrata Sharma
13. Dravyaguna Sutram - Acharya Priyavrata Sharma
14. Dravyaguna Vigyana - Dr. Gyanendra Pandey
15. Dravyaguna Vigyana(Vol. 1-2) - Acharya Yadavji Tikram Ji
16. Dravyaguna Vijyana - Dr. V.M. Gogate
17. Dravyaguna Vigyana (Vol. 1-5) - Acharya Priyavrata Sharma
18. Dravyaguna Shastrum - Vaidya G.A. Phadake
19. Dravyaguna Vijyana - Dr. A.P. Deshpande
20. Dravyaganujnana basic Principles - Prof. D.S. Lucas
21. Forgotten Healers (Indian Medicinal Plants) - Dr. Prakash Pranjape
22. Glossry of Vegetable Drugs in Bhrtrayis - Thakur Balwant Singh & Vd. Krishna Chandra Chunekar
23. Introduction to Dravyaguna - Acharya Priyavrata Sharma
<table>
<thead>
<tr>
<th>No.</th>
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<th>Author/Translator</th>
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<td>24.</td>
<td>Kriyatamka Aushadi Parichaya</td>
<td>Acharya Pt. Vishvanath Dwivedi</td>
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<td>25.</td>
<td>Materia Medica</td>
<td>Acharya Ghosh</td>
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<td>27.</td>
<td>Pharmacological basis of Medical Practice</td>
<td>Goodman &amp; Gillman</td>
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<td>Pharmacology and Pharmacotherapeutics</td>
<td>Satoskar Bhandarkar &amp; Ainapure</td>
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<td>29.</td>
<td>Prayogatamaka Dravyaguna Vigyana</td>
<td>Dr. Maya Ram Uniyal</td>
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<td>30.</td>
<td>Priya nighantu</td>
<td>Acharya Priyavrata Sharma</td>
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<td>31.</td>
<td>Raspanchaka/Dravyaguna Siddhanta</td>
<td>Prof. Shivcharan Dhyani</td>
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<td>32.</td>
<td>System of Plant Nomenclature in Ayurveda</td>
<td>Dr. Gyanendra Panday</td>
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<td>33.</td>
<td>Text Book of Pharmacognosy</td>
<td>Trees &amp; Valis</td>
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<tr>
<td>34.</td>
<td>Textbook of Dravyaguna</td>
<td>Dr. K. Nishteswar</td>
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<td>35.</td>
<td>Unani Dravyaguna Vigyana</td>
<td>Hakim Daljeet Singh</td>
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<tr>
<td>36.</td>
<td>Useful parts of Charaka, Sushurut, and Vagbhata.</td>
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<td>37.</td>
<td>Uttarakand Ki Vanaspatiya</td>
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<td>Vanoaushadi Darshika</td>
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<td>Vanoaushadi Nidarshika</td>
<td>Dr. Ram Sushil Singh</td>
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<td>40.</td>
<td>Vedic Vanaspatiyan</td>
<td>Dr. Dinesh Chandra Sharma</td>
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2.3. Rasashastra Evam Bhaishajyakalpana

(IATROCHEMISTRY AND AYURVEDIC PHARMACEUTICS)

Theory - Two Papers
Total Marks - 200
Teaching hours - 200

Practical :-
Total Marks - 200
Teaching hours - 200

Paper 1
100 Marks

Part A Rasashastra
50 Marks

1. Definition and etymology of Rasa, History of Rasashastra, Importance of Rasaushadhi, Concept of Rasa-Rasayana, Concept of Raseshwar Darshana. Concept of Rasashala and Rasamandap


5. Brief description & application of Musha (Crucible): Samanya Musha, Gostani musha, Vajra Musha, Maha musha, Yoga musha, Vrintaka Musha, Malla / Pakwa musha. Different types of crucibles e.g. Silica crucible, platinum crucible. Mudra and Sandhi Bandhana.


10. Brief introduction of quality control, standardization and GMP of Rasaoushadhies.

Part B
50 Marks

Occurrence, Synonyms, Minerological identification, Sources, Types, Grahya and Agrahya, Shodhana, Marana and other processing techniques. Properties, dose, anupan and therapeutic uses, pathya – apathya and ashuddha, apakwa and avidhee sevanjanya dosha and its management, important formulations of the following:

1. Maharasa – Abhraka (Biotite Mica), Vaikrantha, Makshika (Iron Pyrite), Shilajatu, Sasyaka (Peacock ore), Chapala and R.
1. **Uparasa** – Gandhaka (Sulfur), Gairika (Red Ochre), Kasisa (Green Vitriol), Kankshi (Alum), Haratala (Orpiment), Manahshila (Realgar), Anjana and Kankustha

2. **Sadharana Rasa** – Kampillaka, Gauri pashana (Arsenic oxide), Navasadara (Ammonium chloride), Kaparda (Cowry), Agnijara, Giri Sindura (Red oxide of Hg), Hingula (Red Cinnabar) and Mriddara shringa (Litharge)

3. **Dhatu** - Swarna (Gold), Rajata (Silver), Tamra (Copper), Loha (Iron), Vanga (Tin), Naga (Lead), Yashada (Zinc), Kamsya (Bronze), Pittala (Brass), Vartaloha. Dhatu-graha sambandha.

4. **Ratna** - Manikya (Ruby), Mukta (Pearl), Pravalai (Coral), Tarkshya (Emerald), Pushparaga (Topaz), Vajra (Diamond), Nilam (Sapphire), Gomeda (Zircon or Cinnamone stone), Vaidurya (Cats eye). Ratnapariksha, Ratnadosha, Ratna-graha sambandha.

5. **Uparatna** - Vaikranta (Tourmaline), Suryakanta (Sun stone), Chandrakanta (Moon stone), Rajavarta (Lapis lazuli), Perojaka (Turquoise), Sphatikamani (Quartz), Mriga shringa, Khatika, Godanti (Gypsum) and Samudraphena (Cattle Fisbone), Kukkutanda twak (Hen’s Egg Shell).

6. **Sudha varga** – Sudha (Lime stone), Shukti (Oyster Shell), Shankh (Conch Shell), Mrigashringa (Stag horn), Khatika, Godanti (Gypsum) and Samudraphena (Cattle Fisbone), Kukkutanda twak (Hen’s Egg Shell).

7. **Sikata varga** - Sikata (Silica), Dugdhapashana (Talc), Nagapashana / Jaharmohara (Serpentine), Badarshama (Silicate of lime), Vyomashma (Sangeyashab - Jade), Kousheyashma (Asbestos) and Akika (Agate).

8. **Kshara varga** - Sarja kshara (Sodium bicarbonate), Yava kshara, Tankana kshara (Borax), Surya Kshara (Potassium Nitrate).

9. **Miscellaneous** - Mandura, Bola, Dam- ul Akhawayan (Raktabandhini), Kasturi, Bhoonag, Mayurpiccha, Sarjarasa, Madhoocchishta.


12. **Introduction to pharamcovigilance and its status in India, with reference to Ayurvedic drugs.**

    A) Necessary to know – From part A and B : S. No. 1 to 9
    B) Desired to know – From part B : S. No. 10

**Practical Rasashastra**
Minimum Twenty five practicals to be performed

1. **Rasa [Parada]**
   - Samanya Shodhana of Parada
   - Kajjali
   - Mugdha rasa

2. **Maharasa varga**
   - Shodhana of Abhraka
   - Dhanyabhrika nirmana
   - Shodhana of Makshika
   - Shodhana of Gomutra Shilajatu
   - Shodhana of Sasyaka.

3. **Uparasa varga**
   - Shodhana of Gandhaka
   - Shodhana of Gairika
   - Shodhana of Kasisa
   - Shodhana of Kankshi
   - Shodhana of Haratala
   - Rasa manikya nirman
   - Shodana of Neelanjan

4. **Sadharana rasa varga**
   - Shodhana of Hingula
   - Shodhana of Gouriipashana
   - Shodhana of Mrudharashrunga
   - Sodhana of Navasadar
   - Shodhana of Kapardika

5. **Sudha Varga**
   - Shodhana of Shankha
   - Shodhana of Shukti
   - Shodhana of Pravala mula
   - Shodhana of Godanti

6. **Dhatu varga**
   - Samanya Shodhana of Lauha
   - Shodhana of Mandura
   - Samanya Shodhana of Tamra
   - Shodhana of Naga
   - Shodhana of Vanga
   - Shodhana of Yashada

7. **Kshara Varga**
   - Shodhana of Tankana

8. **Parpati**
   - Preparation of Rasaparpati, Bola
   - Parpati and Swetaparpati

9. **Visha varga**
   - Shodhana of Vatsanabha, Bhallataka,
   - Kupilu, Dhattru beeja, Jayapala, Gunja,
   - Chitrakamoola.

### PRACTICAL FOR DEMONSTRATION / GROUP PRACTICALS

1. **Hinugulad rasakrishti (Hingulottha Parada)**
2. **Bhasma**: 4 (One from each group)
   - i. Abhraka bhasma, Swarna Makshika bhasma, Tamra bhasma
   - ii. Vanga bhasma, Naga bhasma, Yashada bhasma
   - iii. Mandura bhasma, Kasisa bhasma
   - iv. Shankha bhasma, Kapardika bhasma, Godanti bhasma
3. **Pishti**: 1 Pravala pishti, Jaharmohara / Akika pishti,
   - Trina kantha mani pishti, Mukta pishti
4. **Druti**: 1 Gandhaka druti
5. **Formulations**: 4 (one from each group)
   - i. Rasasindura, Swarna vanga, Sameer pannaga rasa
   - ii. Saptamruta lauha, Punarnava mandura, Navayasa lauha
   - iii. Agnitundi vati, Tribhuvana kirti rasa, Sootshekhara rasa,
   - Laghusutashekhara Rasa
iv. Arogyavardhini vati, Laghumalinivasanta rasa, Hinguleshwar rasa, Anandbhairav rasa, Rajapratavartini vati

Bhaishajyakalpana

Paper II 100 Marks
Part A 50 Marks

1. History and Chronological (kramika vikasa) development of Bhaishajyakalpana. Concept of Aushadha and Beshaja.

2. Fundamental principles of Bhaishajya Kalpana.

3. Study of Ancient and Contemporary systems of ‘Maana’ (Units of measurement), Shushka -ardra –drava- dravya grahan niyam (Rules of measures of dry, fresh, liquid drugs); Grahyagrahyatva, Nava Puran dravya grahan niyam.

4. Guidelines and Methods of collection, storage, preservation of Aushadhi dravya. Concept of Saviryatavadhi (shelf life) and stability in ancient and contemporary science.

5. Bhesajprayogavidhi : Aushadha Matra, Anupana and sahapan and Aushad sevan kaala. (Posology)

6. Panchavidha kashaya kalpana and Other kalpana : Kashaya Yoni, Swarasa(ardraka swarasa, tulasi swarasa, kumara swarasa, vasa putapaka swarasa), Kalka( nibi kalka, rasona kalka), Kwatha( punarnavasta kwatha, dashamula kwatha, patoladi kwatha, bruhat manjistadi kwatha, rasnadi kwatha, vasa guduchyadi kwatha, vidaryadi kwatha, rasna sapthaka kwatha), Hima( danyaka hima, sarivadi hima) and Phanta( panchakola phanta, yastimadhu phanta), Pramathya( mustadi pramathya), Aushadha siddha paniya, Tandulodaka, Laksha rasa, Mantha( karjuradi mantha), Panaka( chinch panaka, chandana panaka), Arka( yavani arka, gulab arka, mishreya arka), Churna( sitophaladi churna, ajamodadi churna, hingwastaka churna, avipattikara churna, eladi churna, karpuradi churna, jatiphaladi churna, talisadi churna, triphala churna, trikatu churna, dakshadi churna, navayasa churna, narasimha churna, narayana churna, pushyanuga churna, pancha sama churna, bala chaturbhadrika churna, lavana bhaskara churna, vaishwanara churna, sudarshana churna), Rasakriya( harvi rasakriya, guduchi rasakriya, kutaja rasakriya), Ghana, Phanita, Avaleha( agasthya hareetaki avalehya, kantakari avalehya, kutajavalehya, ashwagandha avalehya, chyavanaprasha avalehya, vasavalehya, vyaghi hareetaki avalehya, kusmanda avalehya, drakshavalehya), Prasha, Gudapaka( manibhadra guda, shatavari guda), Sharkara, Syrups, Ksheerapaka( arjuna ksheerapaka, lashuna ksheerapaka), Satva( amrutha satwa), Guggulu kalpana( triphala guggulu, yogaraja guggulu, kanchnara guggulu, kaishora guggulu, gokshuradi guggulu, tarodashanga guggulu, mahayoga raja guggulu, laksha guggulu, vyoshadi guggulu, vatari guggulu, simhanada guggulu), Vati( sanjeeveni vati, Chandra prabha vati, agni tundi vati, gandhaka vati, gorochanadi vati, dugdha vati, prabhakara vati, marichadi vati, lavangadi vati, lathamadi vati, shankha vati), Guti( eladi gutika, chitrakadi gutika, kanka gutika, dhanvantari gutika, pranadi gutika, bilwadi gutika),
7. **Introduction and general knowledge of useful instruments/Equipments** - Disintegrator, Mixer, Grinder, End Runner, Edge Runner, Sieve-Shaker, Granulator, Tableting machine, Pill making machines, coating and polishing pan, capsule filling machine, sieves and mesh.

8. **Sneha kalpana**: Sneha yoni, Types of Sneha, Sneha murchana vidhi, Sneha paka vidhi, patra paka, types and their use. Sneha siddhi lakshana, dose, Preparation and uses of Triphala Ghrita, Bramhighritya, amrutha prasha grutha, kalyanaka grutha, changeri grutha, jeeveranthya grutha, dadimadya grutha, pancha tikta guggulu grutha, panchgavya grutha, phala grutha, Narayana taila, Anutaila, ksheerabala taila, gandharwa hastyadi taila, chandana bala lakshadi taila, jathyadi taila, panda taila, bala taila, bhui sandhavadi taila, maha narayana taila, bringaraja taila, maha visha garbha taila, shat bindu taila, sahacharadi taila).

9. **Sandhana Kalpana and its types**: Madya Kalpana, Asava( aravindaasava, kumaryasa, knakasava, chandanasava, punarnasava, pippalyadyasava, rodrasava, sarivadyasava, vasakasava), Arishta( dashamularista, abhayarista, amrutharista, ashokarista, ashwagantharista, balarista, kutajarista, khadirarista, vidangarista, saraswatharista), Sura (Prasanna- Kadambari- Medaka- Jagala- Bakkasa), Maireya, Surasava, Shukta, Kanjika, Sauviraka, Tushodaka, Sidhu kalpana their methods of preparation, siddhi lakshana, properties, uses, doses. Takrarishta, Draksharishta, Ashokarishta, Dashamoolarishta, Kumaryasava, Chandanasava.


**PART B**


2-Principles and precautions for preparation of formulations for following:

2.1 **Netraupachararth kalpana (Ophthalmic preparations) – Seka, Drava, Pindi, Anjana - Ashchyotana - Tarpana - Putapaka and Vidalaka, Methods of preparation of eye drops, eye ointments.**

2.2 **Nasyopachararth Kalpana** - Classification of Nasya, Navana, Avapidana, Pradhaman, Marsha and Pratimarsha nasya.
2.3 Dhumapanarth kalpana - Classification of dhumpan, Method of preparation of dhumvarti and it’s therapeutic uses. Dhupan: Vranadhupan, arshodhupan.

2.4 Mukhaprayogarth kalpana - Gandooasha - Kavala - Pratisaran, Tooth paste, Tooth powders and Mouth wash.

2.5 Basti kalpana - Classification, Method of preparation of Niruha and Anuvasana, Basti Therapeutic properties and uses of Basti.

3 Brief knowledge of Standardization of Ayurvedic formulations- Kasthaushadhi.


5 Concept of, Aushadhi Nirmanshala, with respect to Good Manufacturing Practices (GMP) in accordance to Schedule T.

Practical Bhaishajya Kalpana 50 Marks

Following practicals to be performed- (Minimum one from each category)

Method of preparation, therapeutic uses, dose and anupana of the following

1. Swarasa- Ardraka swarasa, Tulasi swarasa, Kumari Swarasa, Vasa putapaka swarasa
2. Kalka- Nimba kalka, Rasona kalka.
4. Hima- Dhanyaka hima, Sarivadi hima .
5. Phanta- Panchakola phanta,Yastimadhu Phanta.
6. Pramathya- Mustadi pramathya
7. Mantha- Kharjuradi mantha
8. Aushadh siddha paniya- Shadanga paniya
10. Arka- Yavani arka, Gulab arka, Misreya arka
11. Panaka- Chincha panaka, Chandan panaka,
13. Churna- Sitopaladi Churna, Hinguwashtaka Churna
18. Khanda- Haridra khanda, Narikela khanda, Sowbhagya shunti paka
19. Satva- Amruta satva,
20. Varti- Phala varti, Chandrodaya varthi
21. Lavana- Arka lavana, Narikela lavana
22. Masi- Triphala masi, Mayurpiccha Masi
23. Ksheerapaka- Arjuna ksheerapaka, Rasona ksheerapaka, Shunthi Ksheerpaka
24. Kshara- Apamarga kshara, Snuhi kshara, Ksharasutra .
25. Manda, Peya, Vilepi, Yavagu, Krishna, Vesavara
26. Yusha - Mudga yusha, Saptamushtika yusha, Kulattha yusha
27. Arista- Kutajarishta, Takrarishta, amruthrista .
28. Asava - Kumaryasava, Kanakasava
29. Sukta kalpana- Kanji
30. Udaka- Tandulodaka
31. Upanaha- Atasi Upanaha
32. Siktha Taila Nirmaan
35. Taila patana- Bhallataka taila patana, Jayapala taila patana

II. Visit of minimum three GMP approved Ayurvedic manufacturing units.

Distribution of Practical Marks : Total 200 Marks

Rasashastra -100
1. Record Book 10 Marks
2. Experiment 30 Marks
3. Spotting 20 Marks
4. Viva-voce 40 Marks

Bhaishajyakalpana - 100
1. Record Book 10 Marks
2. Experiment 30 Marks
3. Spotting 20 Marks
4. Viva-voce 40 Marks

Reference Books
1. Adyatan Rasa Shastra R.K. Goyal
2. Abhinav Rasa Shastra Vaidya Somadev Sharma
3. Asava Arishta Vigyanam Dr. Pakshdhar Jha
4. Ayurvediya Rasa Shastra (Sachitra) Chandrabhusan Jha
5. Ayurvediya Rasa Shastra Badrinarayan Pandey
6. Rasa Bhaishajya Paribhasa Sureshananda Thapaliyal
7. Ayurvediya Rasa Shastra Prof. Siddhi Nandan Mishra
8. Ayurved Prakash Vaidya Gujrat Mishra
9. Drugs and Cosmetic Act - 1940 Dr. Indradev Tripathi
10. The Paka-darpana of King Nala Dr. Madhulika critical study
11. Parada Vigyaniyam Vasudev M. Dwivedi
12. Pratyaksha Aushadh Nirmanam Acharya VishwanathDwivdei
13. Bhaishjyakalpana Vigyanam Dr. Agnihotri
14. Rasa Tarangini Sadanand Sharma
15. Rasa Darpan Prof. Bhajan Das Swami
16. Rasa Bindu Dr. Sanjay Sharma
17. Rasa Mitra Santosh Kumar Khandal
18. Rasa Mitra Dr. Tryambak Nath Sharma
19. Rasa Ratna Samuchchaya (Hindi) Dattatreya /
20. Rasaratna samuchchaya- Ambikadatta
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<td>24.</td>
<td>Rasaratna samuchchaya</td>
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<td>Rasa Shastra Prayogiki Srivastava</td>
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<td>Rasamritam</td>
<td>Vaidya Yadavji Tirkramji Acharya</td>
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<td>25.</td>
<td>Rasayan Sara</td>
<td>Vaidya Shyam Sunderacharya Vaishya</td>
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<td>Rasendra Sampradaya</td>
<td>Vaidya Haji Lal Sukul</td>
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<td>Rasendra Sara Sangraha</td>
<td>Vaidya Gopal Krishna</td>
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<td>30.</td>
<td>Vaidyak Paribhasha Pradeep (Hindi Translation)</td>
<td>Dr. Indradev Tripathi</td>
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<td>31.</td>
<td>Bharatiya Bhaishajya Kalpana Vigyana</td>
<td>Dr. Radhakrishna Parashar</td>
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<td>32.</td>
<td>Bhaishajya Kalpana Vijnanam</td>
<td>Gananath Vishwanath Dwivedi</td>
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<td>33.</td>
<td>Rasa Shastra (English)</td>
<td>Dr. K Ramachandra Reddy</td>
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<td>34.</td>
<td>Rasa Ratna Samuchchaya (English)</td>
<td>Prof. Damodar Joshi</td>
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<td>35.</td>
<td>Rasendra Chintamani (Hindi)</td>
<td>Prof. Siddhinandan Mishra</td>
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<td>36.</td>
<td>Ayurvedic formulary of India</td>
<td>Siddhi Nandan Mishra</td>
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<td>37.</td>
<td>Ayurvedic Pharmacopiea of India, CCRAS</td>
<td>Dr. K Ramachandra Reddy, Dr. K. Ramachandra reddy</td>
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<td>38.</td>
<td>Bhaishjya Kalpana Vigyan</td>
<td>Dr. K. Ramachandra reddy</td>
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<td>39.</td>
<td>Textbook of Rasakashasra</td>
<td>Dr. K. Ramachandra reddy</td>
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<td>40.</td>
<td>Ashadhayoga Vigyanam</td>
<td>Dr. K. Ramachandra Reddy &amp; Dr. P. Suresh</td>
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<td>41.</td>
<td>Vaidyaka Paribhasha Pradipa (Enlgish Translation)</td>
<td>Dr. K. Ramachandra Reddy &amp; Dr. P. Suresh</td>
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<td>42.</td>
<td>Relevant parts of Brihatrayee</td>
<td>Dr Shobha G Hiremath</td>
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<td>43.</td>
<td>Text book of Bhaishjya Kalpana</td>
<td>Dr P H C Murthy</td>
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<td>44.</td>
<td>Text Book of Rasa Shastra</td>
<td>Prof S S Savirkar (CCRAS Publication)</td>
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<td>45.</td>
<td>Rasa Chandashu</td>
<td>Prof S N Mishra</td>
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<td>Bhaishjya Ratnaawali</td>
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<td>Yoga Ratnakar</td>
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3RD PROFESSIONAL

3.1. ROG-NIDAN 02-06
3.2. SWASTHAVRITTA 07-13
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3.4. KAUMARBHRITYA PARICHAYA 18-21
3.5. CHARAK SAMHITA (UTTARARDHA) 22
3.1 ROGA NIDANA

Theory Two Papers – 100 Marks Each
Practical/Viva voce – 100 Marks

PAPER -1 100 Marks

Part A 50 Marks

I. Dosh Dushyadi Vigyana
   1. Definition and importance of Roganidana.
   2. Samanya Nidana and Samanya Lakshana of Dosha Vridhhi, Kshaya and Prakopa.
   3. Doshata Dhatu Ashraya Ashrayi Bhava.
   4. Dhatu Kshaya Vridhhi Lakshana
   5. Mala Kshaya Vridhhi Lakshana
   7. Hetu, Bheda and Lakshana of Agni Dushti.
   8. Definitions and Samanya Lakshana of Ama.
   9. Sama and nirama Dosha, Dushya Lakshana.
   10. Dosa Paka and Dhatu Paka Lakshana.
   11. Concept, classification, diagnosis and general complications of Avarana.
   12. Doshagati and Rogmarga

II. Vyadhi Vigyana
   1. Definition, synonyms and classification of Vyadhi.
   2. Criteria for nomenclature of Diseases in Ayurveda (Vyadhinamakarana).
   3. Bija, Bija Bhaga and Bija Bhaga Avayava Dushti.
   5. Introduction to ICD Classification of Diseases of WHO and DSM classification.
   7. Dhatu, Updhatu, Mala and Indriya Pradoshaj Vikara.
   8. Concept of AshtaMahagada.
   9. Introduction to Ashta Nindita.
   10. Definition and classification of Vyadhikshamatva.

III. Basic Pathology
   1. Introduction to pathology and its sub-divisions.
   2. Introduction to Cell Injury and Cellular adaptations.
   5. Types of Immunity – different types of immune responses in the body – Basic knowledge of auto immune diseases, Acquired immune deficiency disease and hypersensitivity.
   7. Introduction to Nutritional disorders – disorders of macro and micro nutrients.
   8. Introduction to infections.
   9. Introduction and classification of microorganisms such as virus- bacteria-fungus.
Part B  

IV. Nidana Panchaka Vigyaana
1. Difference between Roga and Rogi Pariksha.
2. Importance of Nidan Panchaka.
3. Hetu - Definition, Synonyms and Classification.
6. Upashaya / Anupashaya – Definition, Types and its importance in diagnosis.
7. Samprapti – Definition, Synonyms and Type and Sampapti Ghataka.
9. Upadrava and Udanka.
10. ArishtaVigyan – Definition, Types and its importance.
11. Sadhyasadhyatwa – Types, their parameters and importance.
12. General diagnostic principles of AnuktaVyadhi (Ch. Vi. 4).

V ParikshaVigyaana
1. Importance and knowledge of Aptopadeshadi & Darshanadi Trividha, Chaturvidha, and Shadvidha Pariksha.
2. Importance and Knowledge of Ashtasthana Pariksha.
3. Importance and Knowledge of Karanadi Dashavidha Parikshya Bhava.
4. Importance and Knowledge of DashavidhaPariksha.
5. Basic knowledge of ECG, USG, X Ray, CT Scan, MRI.

Paper II  

Part A  

Systematic study of Nidana Panchaka of following diseases (Including Upadrava, Arishta and Sadhyasadhyata).

I. Diseases of Rasavaha Srotas
2(a) Pandu, Amavata, Hridroga, Shotha.
2(b) Introduction to Anaemia & its Classification, Rheumatic fever, Rheumatoid Arthritis, Hypertension, Angina, Ischaemic Heart Disease, Myocardial Infarction and CCF.

II. Diseases of Raktavaha Srotas
2. Introduction to Hepatomegaly, Spleenomegaly, Leukaemia, Thalessemia, Sickle cell Anaemia.
3. Introduction to Urticaria, Psoriasis, Eczema, Pemphigus.

III. Diseases of Mamsavahasrotas
(a) Galganda
(b) Introduction to Thyroid disorders

IV. Diseases of Medovahasrotas
2. Introduction to Obesity and Diabetes Mellitus.

V. Diseases of Asthi - Majjavahasrotas
2. Sandhigatavata, AsthiMajjagata vata.
3. Introduction to Osteo- Arthritis, Osteoporosis.

**VI. Diseases of Shukravaha Srotas**
1. Introduction to Klaibya and Vandhyatva.
2. Introduction to male and female infertility.

**Part B**

**50 Marks**

**VII. Diseases of Pranavahasrotas**
1(b). Introduction to the aetiopathogenesis of Pneumonia, Pleural effusion, Bronchitis, Bronchiectasis, Bronchial Asthma.

**VIII. Diseases of Annavaha- Pureeshavaha Srotas**
2. Introduction to Anaha, Adhmana, Atopa,Visuchika Alasaka, Vilambika.
3. Introduction to Peptic Ulcer, Irritable Bowel Syndrome (IBS) Diarrhoea, Dysentry, Constipation, Inflammatory Bowel Diseases.

**IX. Diseases of Udakavaha Srotas**
1(a) Introduction to Trishna, Daha.
1(b) Introduction to water and electrolyte imbalance disorders.

**X. Diseases of Mutravahasrotas**
1(a) Mutrakrichha – Mutraghata.
1(b) Introduction to Urinary Tract Infection,Nephropathies.

**XI. Diseases of Swedavahasrotas**
1(a)Introduction to Khalitya, Palitya.

**XII. Diseases of Manovaha Srotas**
1(a) Apasmara, Unmada, Atatwabhinivesha-Vishada, Anidra, Mada, Murchha, Sanyasa.
1(b)Introduction to Epilepsy Depression, Anxiety neurosis.

**XIII. UpasargajanyaVyadhi (Communicable diseases)**
1(a) Romantika – Masurika – Upadamsha – Phiranga.
1(b)Introduction to Measels,Chickenpox, Leprosy , Tuberculosis and AIDS.

**XIV. KrimiVigyana**
1) Definition, classification of Krimi and features of Krimiroga,
2) Snayuka, Shleepada.
3) Introduction of Filariasis and classification of common parasites.

**PRACTICAL**

**(100 Marks)**

**i Fundamental Principles of Laboratory Tests**
Introduction to laboratory, Sterilization, glass wares, solutions reagents and safety procedures, Disposal of biomedical wastes.

**ii Haematology**
1 Haemoglobin estimation.
2 Blood cells counting - WBC, RBC, platelets.
3 Hematocrit /Packed cell volume (PCV).
4 Erythrocyte indices - MCV, MCH, MCHC.
5 Peripheral blood smear, staining technique and differential leucocyte count.
6 Peripheral blood film examination in Anemia, Leukemia, Malaria, Filaria (Demonstration).
7 ESR.
8 Screening test for bleeding disorders - bleeding time (BT). Clotting time (CT), Demonstration of Prothrombin time (PT).
9 Blood grouping - ABO system, Rh typing (Rhesus system).

iii Urine Examination
1. Ayurveda anusara mutrapariksha.
2. Physical Examination - Volume, Reaction (Ph) & Specific Gravity.
3. Chemical Examination for - Proteins, Glucose, Phosphate, Ketone, Bile salts, Bile pigment.
4. Dipstick examination
5. Demonstration of Microscopic Examination.

iv Stool Examination
1 Ayurveda anusara purishapariksha.
2 Physical examination, Sama-Nirama Pariksha.
3 Microscopic examination of ova & cyst (Demonstration)
4 Occult Blood Test.

v Demonstration of Sputum Examination
1 Ayurveda anusara sthivanapariksha.
2 Physical, Chemical and Microscopic Examination of the sputum.
3 Sample collection and Demonstration of AFB.

vi Demonstration of Semen examination
1 Ayurveda anusara Retaspariksha.
2 semen examination.

vii. Biochemical Examination – (Demonstration)
Blood Glucose, Serum Bilirubin, Blood Urea, Lipid Profile, Serum Creatinine, Serum Uric acid etc.

viii. Demonstration of different staining techniques in microbiology.


x. Laboratory record – maintenance of laboratory record book.

Bed side Practical (Clinical Methods)
1. Introduction and demonstration of clinical methods (General and Systemic Examination).
2. Practical demonstration of examination of Roga based on Pancha Nidana.
3. Demonstration of instruments used for clinical examination.
4. Practical records of clinical examination of at least 20 long cases in I.P.D including thurabalaapramana pareeksha.
5. Practical records of clinical examination of at least 20 short Cases based on Ashta vidha pariksha in O.P.D.
6. Demonstration of ECG, USG and Radio imaging techniques.

Distribution of Marks for final Practical Examination
1. Daily Record -10 Marks
2. Indentification of Instruments -10 Marks
3. Laboratory Experiments -20 Marks
4. Short Case -10 Marks
5. Long Case -20 Marks
6. Viva - Voce -30 Marks

Total 100 Marks

Reference Books
2. Doshakaranatwa Mimamsa Acharya P.V. Sharma
3. Nadi Darshan Vd. Tara Shankar Mishra
4. Nadi Vigyana Vidyotini Hindi Tika
5. Nadi Vigyan Shri Satya Dev Vashisht
6. Nadi Vigyan Gangadhar Tika
7. Rogi Pariksha vidhi Acharya Priyavrata Sharma
9. Ayurvediya Nidan Evum Chikitsa Ke Prof. Ram Harsh Singh Siddhanta.
12. Text Book of Pathology Harsh Mohan.
13. Text Book of Pathology Dey and Dey.
15. Clinical Pathology and Bacteriology S.P. Gupta.
17. Parameswarappa’s Ayurvediya Vikriti Vigyan and Roga Vikriti Vigyan. Dr. P.S. Byadgi.
23. Common Medical Symptoms Mehta.
26. General Pathology Walter & Israel Churchill Living stone.
28. Practical Pathology Dr. K. Uma Chaturvedi.
29. Clinical examination Douglas/Macleod’s.
31. Medical Laboratory Technology R. Sood.
32. Clinical Diagnosis and Management by Todd, Sanford and Davidson Laboratory methods.
33. Clinical Hematology In Medical Practice Degruchy’s.
34. Robbins Basic Pathology Kumar, Abbas, Fausto at al.
3.2 SWASTHAVRITTA

Theory- Two papers- 100 marks each
Practical Viva voce -100 marks

Paper-I

PART A- (VAIYAKTIKA SWASTHAVRITTA) 50 marks

Introduction
Definition of swastha & swasthya and swasthavritta. Arogya lakshana, swasthavritta prayojnam, WHO definition of health. Dimensions of health-Physical,Mental,Social, Concept of well being- objective, subjective, standard of living, quality of life.

Dinacharya
1. Definition of Dinacharya,
ii. Aims and importance of dinacharya.
iii. Brahma Muhurta evam Utthana
iv. Usha Jalapana
v. Sharirachinta
vi. Malatyaga
vii. Mukha prakshalana
viii. Dantadhavana and preparation of Ayurvedic tooth powder and paste
x. Jihvanirlekhanavidhi
xi. Anjana
xii. Pratimarsha Nasya
xiii. Gandusha and Kavala
xiv. Tumbulasevana
xv. Dhoomapana
xvi. Abhyanga
xvii. Udvartana
xviii. Utsadana
xix. Vyayama
xx. Chankramana
xxi. Snana
xxii. Anulepana
xxiii. Vastradharana
xxiv. Dandadharana,
xxv. Padatradharana
xxvi. Chatradharana
xxvii. Ushnishadharana
xxviii. Ratnabharanadharana
xxix. Madhyahna charya
xxx. Cosmetic effect of Dinacharya procedures

Rathricharya
1. Sandhya charya,
2. Rathri bhojana vidhi,
3. Shayanavidhi according to Bhavamishra.

Ritucharya:
1. Importance of ritucharya,
2. Ritu as per different acharyas
3. Adana kala & visarga kala
4. Sanchaya, Prakopa-Prashamana of Dosha and their Utpatti in Ritu
5. Doshashodhana in Ritu sandhi
6. Relation of Agni bala and Ritu
7. Pathya and Apathya - Ahara and Vihara in different ritus
8. a) Ritusandhi  
b) Yamadamsthra  
c) Rituharitaki  
d) Rituviparyaya

**Sadvritta**
Description of Sadvritta and Achara Rasayana – their role in Prevention of psycho-somatic disorders

**Trayopastambha**

**i) Ahara**

Proximate principles of Food, Nutritional requirements. Sources and deficiency diseases of Protein, Carbohydrate, Fat, Vitamins and Minerals.

Concept of balanced diet in Ayurveda, Nitya sevaneeya dravya, Balance diet for different sections of people in the society. Social aspects of nutrition.

Aharavarga - Dhanya varga(Cereals and millets), Shaka and Harita varga (Leafy and Non leafy vegetables),Kanda varga (roots and tubers), Phala varga (Fruits), Taila varga(Fats and Oils),Ikshu varga & Madhya varga(Vegetables), Dugdha varga (Milk and Milk products), Masala and vyanjana dravyas (Spices & Condiments).Kritanna varga(Prepared Food), Mamsa varga (Meat types).

Food hygiene, Milk hygiene, Milk composition, Source of infection (for Milk), Milk borne diseases, Clean and Safe milk, Pasteurization of milk.

Meat hygiene, Meat inspection, Slaughter house, Freshness of fish and egg. Fruits and Vegetables hygiene
Sanitation of eating places, Preservation of food, Food handlers, Food borne diseases, Food fortification and adulteration, Food toxicants, Properties of Vegetarian and Non-vegetarian diet, Effects of spices and condiments, Consumption of Alcohol and its effects on personal and social health.

Ayurvedic diet in life style disorders-Diabetes, Hypertension, Obesity and Coronary heart Disease.

Nirukti, paribhasha, prabheda and udaharana of Rasayana for Swastha.

**ii) Nidra**
Nirukti and Utpatti, Types , Nidra – Swasthya sambandha, Properties of Yukta Nidra, Effects of Ratri Jagarana, Diwaswapna, Anidra, Atinadra, Ahara and Vihara causing disturbed sleep , Ahara and Vihara Causing sound sleep.

Duration of sleep according to age, Sleep in healthy and diseased persons.

**iii) Brahmacharya**

**Roganutpadaniya**
Concept of Vega, Adharaniya Vega and Dharaneeya Vega, Diseases due to vegadharana and their chikitsa, Upavasa.

Menstrual hygiene.
**Topic of the syllabus**

Yoga shabda utpatti, definitions, Different schools of Yoga – Rajayoga, Hathayoga, Mantrayoga, Layayoga, Jnanayoga, Karmayoga, Bhaktiyoga.

Yoga prayojana

Ayurveda yoga sambandha, swasthya rakshane yogasya mahatvam, Panchakosha Theory

Yogabhyasa pratibhandhaka & siddhikara bhavas as per Hathayoga.

Astanga yoga – Yama, Niyama

Asana and its importance

Standing Postures

Ardhakatichakrasana, Padahastasana, Ardhachakrasana, trikonasana.

Sitting postures

Swasthika, Gomuka, Padmasana, Vajrasana, Bhadrasana, shashankasana, Ushtrasana, Pashchimottanasana, Suptavajrasana, ardhamatsyendrasana, Siddhasana.

Supine Postures

Pavanamuktasana, sarvangasana, Matsyasana, Halasana, Chakrasana, Shavasana.

Prone postures

Bhujangasana, Shalbhasana, Dhanurasana, Makarasana.

Suryanamaskara – technique and procedure.

Pranayama

Benefits, Nadishudhi Pranayama, time of practice, avara-pravara-madhyama lakshana, yukt-aayukta lakshana

Kumbhakabhedha – suryabhedana, ujjayi, sheetali, Sitkari, Bhastrika, Bhramari Murcha, Plavini.

Mitahara and Pathyapathyani during Yogabhyasa.

Shatkarma

Dhauti, Basti, Neti, Trataka, Nauli, Kapalabhati

Nadishudhilakshana, Malashodhaka Pranayama.

Bandhas and Mudras

Shad chakras, Ida-pingala-sushumna nades.

Pratyahara, Dharana, Dhyana, Samadhi


Nisargopachara (Prakritika chikitsa)

Definition and history, Aims and objectives

Theories as per Western school of Naturopathy

Indian school – Panchabhotopasana

Relation of Ayurveda and Naturopathy

Importance of Naturopathy in present era.

Jalachikitsa – Hot water treatment, Cold water treatment, foot and Hand bath, Spinal bath, hip bath, abdominal wet pack, Steam bath, enema and whirl pool bath.

Mrittika chikitsa (Mud therapy), Types of soil, doctrine of mud selection, mud bath.

Suryakirana sevana (sun bath - heliotherapy)

Mardana (Massage) – different methods and effects.

Diet types – Soothing, Eliminative, Constructive

Positive and negative diet

Acidic and alkaline diet

Upavasa chikitsa – Importance, types, therapeutic effects of fasting.

Visrama chikitsa upayoga
PAPER II – SAMAJIKA SWASTHAVRITTA

Janapadodhwamsa
Causes, Manifestation and control measures, importance of Panchakarma and Rasayana.

Vayu (Air)
Vayu guna according to sushruta samhita, Properties of Vayu as per different directions, Vayu shudhi prakara – Ayurvedic aspect. Composition of air. Air of occupied room, Discomfort and comfortable zone, Air movement, Air pollution – health and social aspects, Prevention and control of air pollution, ventilation and its types. Mountain air & High altitude – Health problems

Jala (Ayurvedic and modern aspects)
Importance of water, safe and wholesome water, water requirements, properties, types and sources of water, impurities of water and health hazards, Methods of water purification. Hardness of Water, Examination, Tests and analysis of water. Rain water harvesting and water recycling

Bhumi tatha nivasa sthana;
Types of soil, soil & health, Land pollution, Bhumi shodhana, Nivasa yogya bhoomi, Social goals of housing, Housing standards, Mahanasa (Kitchen) standards, Rural housing, Housing and health overcrowding.

Prakasha
Requirement of good lighting, natural lighting, artificial lighting, biological effects of lighting. Dhwani pradooshana - Noise, Sources, effects, & control. Vikirana-Radiation (sources, effects and control)

Apadravya Nirmulana (Disposal of solid waste): -
Different types of solid waste. Storage and collection of refuse. Methods of disposal of solid waste (Rural & urban). Bio-medical waste management

Malaniskasana Vyavastha (Excreta Disposal)
Unsewered area, Sewered area. Latrines for camps, fairs and festivals. Disposal of dead body – Burial, Burning, Electric cremation etc. Meteorology (Ritu evam Vatavarana jnanam). Disaster management

Occupational Health
Occupational Hazards, Occupational Disease, Prevention of Occupational Diseases Health & precautionary measures, ESI, Indian factories Act, offensive Trades- Effects on health and precautionary measures.

School health services
Health problem of school children, aspects of school health service, duties of school medical officers, Maintenance of healthy environment. Epidemiology
Concept of Epidemiology, Dynamics of disease transmission, concept of diseases, concept of causation, Epidemiological triad, natural history of disease, concept of control, concept of prevention, Risks factor, modes of intervention, incidence and prevalence. Susceptible host, host defenses, Immunizing Agents, Disease prevention and control, disinfection – definition, types, Ayurvedic concept of Vyadhikshamatva and sankramaka rogas.

Epidemiology of communicable Diseases
Chicken Pox, Measles, Diphtheria, pertussis, mumps, tuberculosis, SARS, Influenza, Pneumonia, Cholera, polio, Viral Hepatitis, Typhoid, Leptospirosis, Dengue Fever, Chikungunia, Malaria, Filariasis, Leprosy, Rabies, Tetanus, Emerging and re-emerging diseases

Kuprasangaja vyadhi (STDs)
AIDS, Syphilis, Gonorrhoea, Chanchroid,

Non-communicable disease epidemiology
Diabetes, obesity, Hypertension, coronary Heart Diseases, Rheumatic Heart Disease, Cancer

Chikitsalaya Bhavana (Hospital Building)

**Topic of the syllabus**

Prathamika swasthya samrakshana(Primary Health Care)
Definition, principle, elements,levels of health care.
Structure at village, sub centre, PHC,CHC, Rural hospital levels.
Health insurance, Private agencies, Voluntary health agencies, NGOs and AYUSH sector.
Role of Ayurveda in Primary Health Care.

Parivara kalyana Yojana (Family welfare Programmes)– Demography, demographic cycle, life expectancy, family planning, methods of family planning.

Matru sishu kalyana Yojana – RCH programme.
Ante natal, intra natal, post natal, neo natal care. Child health problems and indicators of RCH care.

Preventive geriatrics

Viswa swasthya sanghatana
International health agencies.

Alma Ata declaration and National Health Policy.
Swasthya vishayaka samkhyaki Definition, Sources, uses Data collection, Classification, Presentation, Vital statistics.
Swasthya prashasana – Health administration at Central including AYUSH, state, district, village levels.
National health programmes: Tuberculosis (RNTCP), Leprosy(NLEP), AIDS (NACP), Blindness (NPCB), Polio(PPI),Diabetes (NDCP), Cancer (NCCP), Guinea worm, Hook Worm, Vector born disease control programme - Filaria, Malaria, NRHM, The upcoming national health programmes, National Nutritional Programmes - IDD, Vitamin A prophylaxis, Mid day meal, anemia control programmes.
RCH programme, Universal Immunization Programme.

Practical Session:

Demonstration of Dinacharya procedures such as anjana, nasya, kavala, gandoosha and dhoomapana at swasthavritta museum. After that a 15 day in house training programme for all students should be implemented to get a hands on experience on DINACHARYA procedures and at least one RITUSHODHANA. This is to be documented along with the journal.

Demonstration of abhyanga, udvarttana and anulepana at the Panchakarmagara.

Parichaya of aharadravya, immunization agents, disinfectants and family planning devices

Educational Visits for observing the functioning of Milk Dairy, water purification unit, sewage disposal unit, MCH/Family welfare centre, Leprosy sanatorium and Industrial unit.

Visit to Primary Health Centre for knowledge of actual implementation of National health programmes including knowledge of rural health. Visit of Rural Ayurvedic dispensary.

Visit to a Yoga and Naturopathy Centre.

Practical demonstrations of Asanas mentioned in the syllabus, Pranayama (Suryabhedana, Ujjayi, Shitali, Sitkari, Bhastrika, Bhramari and Nadishuddhi) and Shad karmas(Jala dhauti, Jalaneti, Sutraneti, Trataka, Kapalabhati)

Naturopathy treatment modalities –practical demonstration in Naturopathy Centre.

Health survey in minimum 5 families each of rural and urban areas. Transportation facility should be provided by the college for field visits.

There should be 5 case sheets for Yoga Naturopathy & pathya apathy together and 5 case sheets for communicable diseases. Proformas for Case sheets/ practical records/ survey/Dinacharya projects etc should be prepared by the respective universities.

**Practical and Viva Voce examination**

<table>
<thead>
<tr>
<th>Marks distribution</th>
<th>100 marks</th>
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<tbody>
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<td>1. Personal hygiene</td>
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<td>2. Public and social health</td>
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<td>3. Demonstration of Yoga</td>
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<td>4. Naturopathy</td>
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<td>5. Journal work</td>
<td>10</td>
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<tr>
<td>6. Viva voce</td>
<td>30</td>
</tr>
</tbody>
</table>

**Reference Books:**

Relevant portions of Charaka, Sushruta, Vagbhata, Sarngadhara, Bhavaprakasha, Yogaratnakara, Madhavanidana and Bhelasamhita.

Swasthavritta Samucchaya - Pandit Rajeshwar dutt Shastri
Swasthya Vigyan - Dr. Bhaskar Govind Ghanekar
Swasthya Vigyan - Dr. Mukund swarup Varma
Swasthavritta - Vaidya Sakad
Swasthavritta - Dr. Ranade and Dr. Firke
Ayurveda Hitopadesh - Vaidya Ranjit Rai Desai
Yoga and Ayurved - Acharya Rajkumar Jain
Swasthavritta vigyan - Dr. Ramharsha Singh
Swasthavrittam - Dr.Brahmanand Tripathi
Swasthavrittam - Dr. Shivkumar Gaud
Ayurvediya Swasthavritta - Vaidya Jalukar Shastri
Patanjala yogasutra - Patanjali Maharshi
Hathayogapradipika - Swatmaram Yogendra
Gheranda samhita - Gherand Muni
Yoga Paddhati - Bharatiya Prakritik Chikitsa Parishad
Yogik Chikitsa - Shri. Kedar Nath Gupta
Sachitra Yogasan darshika - Dr. Indramohan Jha
Yoga deepika - Shri. B.K.S. Iyengar
Light on Yoga - Shri. B.K.S. Iyengar
Light on Pranayama - Dr. Ramharsha Singh
Yoga and yoga chikitsa - Dr. Ramharsha Singh
Foundations of Contemporary Yoga - Dr. Ramharsha Singh
Yoga Sidhant evam Sadhana - Harikrishna Shastri datar
Prakritik chikitsa Vidhi - Sharan Prasad
Prakritik chikitsa vigyan - Verma
Preventive and Social Medicine - J. Park
Preventive and Social Medicine - Baride and kulkarni
Janasankhya Shiksha Sidhanta - Dr. Nirmal Sahani
Evam upadesya
Health Administration in India - S.C.Seel
Health and family welfare - T.L.Devaraj
Positive Health - L.P. Gupta
Biogenic Secrets of food in Ayurveda - L.P.Gupta
Smriti granthon mein nihit - Dr. Smt. Nigam Sharma
Swasthaprakara samagri - Dr.P.sudhakar Reddy
to Swasthavritta
Nutritive value of Indian foods - ICMR
Yoga and Nisargopachar - Vd. Prama Joshi
Prachin Vangmay mein prakritic chikitsa - swami Anant Bharati, CCRYN
Swasthavritta - Vd Yashwant Patil and Vd. Vhawal
Food and nutrition - Swaminathan
3.3 PRASOOTI TANTRA AND STRI ROGA

THEORY : 200 marks
Practical : 100 marks

Paper-I
Part-I
INTRODUCTION TO SUBJECT MUST KNOW STRI SHARIRA VIGYANA:
Etymological origin of the word Stree, Normal and abnormal conditions of Asthisandhi peshi Sahita stree shroni; Aartavvaha and Stanyavaha srotamsi. Tryavarta yoni.stree vishishta peshi marmani. Anatomy of female internal and external genitalia, Soft & Bony Pelvis and its obstetrical importance.

DESIRABLE TO KNOW:
Vayobhed stree sangnya

RAJO VIGYANA:

GARBHA VIGNYANA:
A) Garbhasya paribhasha, Garbhadhanaavidhi, Garbhaavakranti, Garbha sambhava samagri, , Garbhakara bhava, Panchabhatika composition of garbha, Masanumasika Vridhi of Garbha, Garbhaposhana, garbhashayasta garbhashthiti, fetal attitude lie,position, presentation.
B) Apara, Garbha Nabhinad, Garbhodaka, Jarayu, Ulba. Placenta, Umbilical cord Amniotic fluid, Foetal bmembranes their formation, development, function,normalcies and their abnormalities.

GARBHINI VIGYAN
a. Lakshana of Sadhyograhita garbha, lakshanas of vyakta garbha, diagnosis of pregnancy, Pumsavana vidhi.

DESIRABLE TO KNOW:
Garbhalingotpatti, Garbhasya avayavotpatti, Garbha Varnotpatti (origin of complexion in foetus) Garbha vikriti. Modern embryology.concept of Stree shukra.
GARBHINI VYAPAD:

SECTION- B

MUST KNOW
PRASAVA VIGYANA (Parturition)  
PRAKRUTA PRASAVA: Prasava Paribhasha, Prasavahetu, Prasavakaal, Sutikagaara; nirmaana, sangrahaniya dravyani, sutikaagara praveshavidhi Garbhaasan, Prasavaavastha: prajayani/ upasthita prasava/ prajanishyamana/ asannaprasava avastha, Avi. and Prasavaparicharya management of normal labour, partogram, jaatamatraparicharya

NORMAL LABOUR definition of labour, Physiology and Mechanism of labour, clinical features, monitoring of labour and management. Episiotomy Care and resuscitation of newborn.

PRASAVA VYAPAD (DISORDERS OF LABOUR):
MUST KNOW
Garbhasanga, Vilambita prasava, prolonged labour.
Preterm labour, post term labour,
Induction and augmentation of labour,
Mudagarbha; definition, etiopathology, clinical features, types, Sadhyasadhya, treatment- Aushadha, Mantra, shastra, Yantrachikitsa. Obstructed labourYoni samvarana, cervical dystocia, cephalo pelvic disproportion, Fetal distress Udarapatanapurvaka garbha nirharana, cesarean section.
Aparasanga. Retention of placenta its causes, clinical features and management,
Post partum haemorrhage.
Genital tract injuries during labour.

DESIRABLE TO KNOW:

MUST KNOW
SUTIKA VIGYANA – Sutika Paribhasha, Sutika Kala, changes during Sutika avastha(Sharirika and Manasika), Sutika paricharya. Normal and abnormal Puerperium and its management.

SUTIKA ROGA – Number of sutika rogas, sutika jwara, Sotha and Makkala.

DESIRABLE TO KNOW:
Stana stanya pareeksha, Stanya sampat.
MUST KNOW
EMERGENCY CARE IN OBSTETRICS  No. Of lect. 3

PAPER SECOND – STREE ROGA

MUST KNOW

ARTAVA VYAPAD
Artava Vridhhi, Kshaya, ashta artava dushti, kastartava ,Anartava
Amenorrhoea, hypo- oligomenorrhoea and dysmenorrhea
Asrígđara, abnormal uterine bleeding,

YONI VYAPAD  –Sankhya, nidana, lakshana, upadrava evam chikitsa with all possible
modern correlations.

VANDHYATVA
Infertility – causes, types, investigations and management

DESIRABLE TO KNOW
Congenital malformations of female genital tract.
Shukra vigyana: Description of shukra, shukra vriddhi, kshaya, shukra dusti their hetu,
laxana, and its chikitsa.

MUST KNOW
Yoni Kanda, Yoni Arsha, Granthi and arbudas of yoni.
Pelvic infections including STI, HIV, AIDS – causes, types, investigations and management
including preventive aspect.

DESIRABLE TO KNOW
Benign, pre malignant and malignant conditions of genital tract.

MUST KNOW
RAJONIVRUTTI climacteric and menopause  No. Of lect.2

PART – B

MUST KNOW

STANAROGA
Stanagranthi, stanavidradhi, stanashopha
Mastitis, breast abscess and galactocele - their etiopathology, clinical features, diagnosis,
prognosis, treatment and complications.

STHANIK CHIKITSA-
Snehana, svedana, uttarabasti, pichu, varti, lepana, dhoopana, dhavana, dahana,
ksharakarma etc. Practical knowledge of these procedures with indications, complications
and management.

SHASTRĀ KARMA –
Surgical procedures their indications, Contraindications of cauterization of Cervix, Cervical
dilatation and curettage, Female surgical sterilization.
Knowledge of indication and procedure of PAP smear, endometrial and cervical biopsy and interpretation of their reports.
Stree roga sambandhita pramukha aushadhi. Prasuti stree roga chikitsa upayogi yantra shastra parichaya, investigative and diagnostic aids.
Garbhanirodhaka upaya.
Parivar niyojana, reproductive and child health care, MCH, PNDT Act, MTP Act. AIDS/HIV control program and importance of current national programme
Commonly used Ayurvedic and allopathic drugs in prasuti tantra and stree roga. Pharmacotherapeutics allopathic of the drugs used in Obstetrics and gynecology.
Record keeping, ethical and Medico legal issues in stree roga and prasuti tantra.

DESIRABLE TO KNOW
Basic knowledge of laproscopy, Hysteroscopy, Hysterosalpingography, USG, X-RAY, Colposcopy.
granthi evam garbhashaya nirharanasya saamanya gyana, Hysterectomy.

CLINICAL TRAINING

OBSTETRIC SKILLS
To perform independently
1. History taking and examination of antenatal and gynecological cases.
2. Diagnose pregnancy, assess period of gestation, to diagnose onset of labour.
3. To monitor labour progress, usage of CTG, able to plot partogram,
4. Observation of 10 labour cases
5. To diagnose abnormalities of labor and decide about the referral of patient.
6. Able to provide first aid for obstetric emergencies.
7. Recognition of post partum complications.
8. Counseling and supervising of breast-feeding.

To observe/Assist
1. Assit/observe D& C/ D&E
2. Resuscitation of newborn.
3. Caesarian section and repair operations

GYNECOLOGICAL SKILLS:
To perform independently
1. History taking and examination gynecological cases.
2. Taking vaginal wet smear, high vaginal swab, cervical punch biopsy and Pap smear.
3. Copper T insertion, removal and follow up.
4. Practical knowledge of performing sthanika chikitsa.
5. Observation and practical knowledge of performing minor gynecological procedures.
6. Observation of surgical procedures mentioned above.
7. Identification, uses, demonstration of surgical instruments and method of sterilization.

To observe
MTP, Family planning operations, Hysterectomies, Oophorectomy and repair operations D&E

Distribution of Marks – Practical Exam

1. Case taking(2 Cases) 30 Marks
2. Instruments Drugs and Models 20 Marks
3. General Viva 40 Marks
4. Journal 10 Marks
3.4. Kaumarbhritya (Ayurvedic Pediatrics)

Theory One Paper – 100 Marks
Practical Viva Voce - 50 Marks

Paper I

Kaumarbhritya Parichaya Evum Balaka Paricharya
(Introduction to Ayurvedic Pediatrics and Child Care)

Part A

1. General introduction and scope of Kaumarbhritya (Ayurvedic Pediatrics), Definitions and terminologies used in Kaumarbhritya.
2. Importance of Kashyapa Samhita in Kaumarbhritya.
3. Vayobheda (Classification of age): Garbha, Bala, Kumara; Kshirada, Kshirannada & Annada etc.
5. Navajata Shishu Paricharya (Neonatal Care): Care of the Jatmatra (Newly born child) and the Sadyojata, Care of the Samaya-purvajata Shishu (Preterm), Purnakalika Shishu (Full term), and Samaya-Paschatjata Shishu (Post term neonate), Nabhinala Chhedana (Cutting of umbilical cord), Complications of improper cutting of umbilical cord and its treatment, Rakshoghna Karma (Protective measures- Ayurvedic and modern view).
6. Navajata Shishu Parikshana (Examination of newborn): Ayu-Parikshana, Modern approach to Neonatal Examination
7. Navajat Shishu Poshana (infant feeding): Specific feeding schedule as per Ayurvedic texts and modern concept; Stanya-Sampat (Properties of normal breast milk) Stanyotpatti (Physiology of lactation), Stanya Sangathana (Composition of breast milk), Stanya Parikshana (Examination of breast milk), Stanya-Piyusha (Colostrum); Stanya-Pana-Vidhi (Techniques of breast feeding), Stanyakshaya-Stanyanasha (Inadequate production and absence of breast milk), Dhatri (wet nurse)- Stanyabhaye dugdh Vyavastha (alternative feeding in the absence of breast milk), Various other milk feeding methods.
8. Stanyadosha (Vitiation of Breast milk), Stanya Shodhana (Purification of breast milk), Stanya Janana and Vardhanopakrama (Methods to enhance breast milk formation).
11. Dantotpatti evum Danta Raksha Vidhi (Dentition and dental care): Danta-sampat (Characteristics of healthy teeth), Danta Nisheka evum Dantodbdheda (Eruption of teeth), Dantodbdhajanya Vikara (Dentition disorders).


13. Prashan & Lehana: Indications, contra-indications, different drugs used in lehana.

14. Knowledge of National Programs related to Child Health Care: Reproductive and Child Health (RCH) Program, Community Child Health Programs, Nutritional Programs, National Immunization Program and other programs incorporated by Govt of India from time to time.

Part B

Samanya Chikitsa Siddhanta and Balaroga

(General Principles of Treatment and Management of Pediatric Disorders)

1. Bala Pariksha-vidhi Evam Shishu Vedana Parigyan (Examination of sick child and Diagnostic methods-Ayurvedic and modern). Samanya Chikitsa Siddhanta (General principles of treatment in children).

2. General Aushadhi Matra Nirdharana - for Ayurvedic and modern drugs preparations (drug doses according to age, weight and drug contents).

3. Specific therapeutic panchakarma procedures in children with special emphases on snehan, swedan and basti.


5. Brief description of Sahajayadhi - (Congenital disorders): Sahaja Hridaya Vikara (Congenital Cardiac Disorders) Jalashirshaka (Hydrocephalus), Khandaoushtha (cleft lip), Khanda-Talu (cleft palate) Sanniruddha Guda (Anal stricture / imperforated anus), Pada-Vikriti (Talipes equanovarus and valgus), Spina bifida, Meningocele, Meningomyelocele.


7. Prasavottara Vyadhi (Neonatal disorders): Navajata Kamala (Neonatal Jaundice), Navajata Netrabhisyanda (Neonatal conjunctivitis), Nabhiroga (Umbilical disorders), Cerebral Palsy, Neonatal Septicemia,

8. Dushta Stanyapanajanya Vyadhi (Disorders due to Vitiated Milk): Lactose intolerance, Charmadala (Infantile atopic dermatitis), Kshiralasaka, Kukunaka, Ahiputana (Napkin Rashes)

10. Aupasargika Vyadhi (Infectious Diseases): Karnamula Shotha (Mumps), Romantika (Measles), Rubella, Masurika (Chicken Pox), Rohini (Diphtheria), Kukkur-Kasa (Whooping Cough), Dhanurvata (Tetanus), Krimiroga (Worm Infestations), Antrika Jwara (Typhoid), Mastisakavarnashotha (Meningitis), AIDS, Dengue, Malaria, Poliomyelitis, Rajayakshma (Tuberculosis), Jivwanujanya Yakrit Shotha (Hepatitis)

1. Srotas Vikara:
   a. Pranavaha Srotas: Pratishyaya (common cold), Kasa (Cough), Shwasa (Respiratory distress syndrome), Tamata Shwasa (Bronchial Asthma), Utphullika, Swasanaka Jwara (Pneumonia/Pneumonitis, Bronchiolitis), Gala shotha (Pharyngitis, Laryngitis), Talukantaka (Tonsillitis)

   b. Annavaha Srotas: Ajirna (Indigestion), Atisara (Diarrhoea), Chhardi (Vomiting), Vibandha (Constipation), Mukhapaka (Stomatitis), Gudapaka (Proctitis), Parikartika (Anal fissure), Udarshula (Infantile Colic), Pravahika (Dysentery), Gudabhransa (Rectal Prolapse). Ama and its disorders like Ama vata jwara (Rheumatic fever).

   c. Rasavaha Srotas: Jwara (Fever), Pandu (Anemia), Mriddbhakshanajanya Pandu (Anemia associated with clay eating/ Pica).

   d. Raktavaha Srotas: Kamala (Jaundice), Raktapitta (Haemorrhagic disorders), Yakritodara (Hepatomegaly) and Pleehodara (Spleenomegaly).

   e. Mamsa-Medovaha Srotas: Apachi (Lymphadenitis), Galaganda (Goitre), Gandamala (Cervical Lymphadenopathy).

   f. Mutravaha Srotas: Shopha in Vrikka (Glomerulonephritis and Nephrotic syndrome)

2. Anya Bala Vikara (Miscellaneous Pediatric Disorders) Pangutwa (Locomotor disorders), Vamanatwa, (Dwarfism), Apasmara (Epilepsy), Akshepa (Convulsions), Nirudhaprakasha (Phimosis), Kushta (Skin disorders).


5. Balagraha: General description, classification, clinical features and management.

6. Various Ayurvedic & modern procedures and investigations in pediatric practice –

**PRACTICAL**

**Content of Practical / demonstration**

1. Clinical training of above mentioned disorders of children.
2. Exposure to –
   a) Navajata Shishu Paricharya (Care of the newborn)
b) Pranapratyagamana Vidhi (Resuscitation procedure of new born)
c) Vaccination
d) Panchakarma Vidhi (Panchakarma procedures)

3. Knowledge of various equipments such as phototherapy unit, overhead radiant warmer, resuscitation equipments, Panchakarma equipments and their application
4. Knowledge of IV fluid administration, blood sampling
5. Breast feeding technique and techniques of other milk feed
6. 

Distribution of Marks
Clinical work: Pediatric and neonatal case records [10 case sheets of each] 10 Marks
Patient Examination 20 Marks
Spotting 05 Marks
Viva - voce 15 Marks
-----------------------------------------------------------------------------------------------
Total 50 Marks

Reference Books
1. Kashyapa Samhita Complete Hindi translation by Satyapal Vidhyalankara English translation by Prof. Premvati Tiwari
3. Child Health Care in Ayurveda: Abhimanyu Kumar
5. Kaumarbhritya by Prof. D.N. Mishra
6. Kaumarbhritya Ke Antargata Balgraho Ka Kramika Evam Vaigyanika Adhyana by Prof. Chanchal Sharma
7. Notes on Kaumarbhritya-by Dr. Dinesh K S
8. Pran - Pratyagamanam-by Dr. B.M. Singh
9. Ayurveda Dwara Matra Evam Shishu Paricharya by Dr. KS Patel,V.K.Kori & Rajgopal S
10. Kaumarbhritya related references from Charaka Samhita, Sushruta Samhita Vagbhata etc.
11. Clinical Methods in Paediatrics by Meharban Singh
12. Pediatrics Emergencies by Meharban Singh
13. Essential Pediatrics O.P. Ghai
15. Care of New Born by Meharban Singh
1.5. **CHARAK SAMHITA- UTTARARDHA**  
(Uttarardha: Chikitsa – Kalpa - Siddhi Sthana)

**Theory- One Paper – 100 Marks**  
**Practical - 50 Marks**

The marks of theory examination are distributed as follows:

1. Chikitsa sthana 60 Marks  
2. Kalpa sthana 15 Marks  
3. Siddhi sthana 25 Marks

**PRACTICALS: -**  
**For practicals following activities are included**

1. Memorizing and in writing two shloka weekly related to Samprapti and Chikitsa Sutra (Eight shloka per month.) and note book of memorized shloka, corrected and signed by the class teacher is to be submitted at time of examination.  
2. Preparation of Charts /Compilation/Assignment.  
3. Case taking from samhita siddhant OPD / IPD of the Hospital. Total 20 cases should prepared be recorded in case record Journal.

**Distribution of marks: -**

1. Oral presentation (Presentation of 10 Shloka, orally and in writing related with Samprapti and Chikitsa Sutra) 10 Marks.  
2. Viva voce on Prepared Charts / Compilation/Assignment. 10 Marks.  
3. Case taking and prescription writing by examining the patients from OPD & IPD of Samhita siddhant of hospital and oral related to Case record Journal. 10 Marks.  
4. General Viva - Voce. 20 Marks.

**Reference Books**

1. Charak Samhita -Chakrapani Tika (Sanskrit Commentary)  
2. Charak Samhita (Hindi Commentary) Vd. Jayadev Vidyalankar or Vd. Atridev Vidyalankar or Prof. Gorakh Nath Chaturvedi & Kashinath Shastri or Dr. Brahmanand Tripathy or Dr. Ravidutta Tripathy  
## CENTRAL COUNCIL OF INDIAN MEDICINE
## NEW DELHI
## SYLLABUS OF AYURVEDACHARYA (BAMS) 4th Year

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#### 4TH PROFESSIONAL

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4.1 KAYACHIKITSA

Theory Two Papers – 100 Marks Each
Practical/Viva voce – 100 Marks

Paper I

Part - I 50 Marks


2. Importance of Kriya Kaala according to stages of Dosha and their management.

3. Chikitsa sutra and Management of vridhdi (increased) and kshaya (decreased) of Dosha, Dhatu and Mala, Ojo Vyapat (Kshaya, Visrampa and Vyapat) and its management. Chikitsasutra and Management of Sama-Nirama states, Roga-Anuptattikara Chikitsa, Roga Prashamana Chikitsa (Doshapratyanika, Vyadhipratyanika, Ubbhayapratynika), Doshopakrama, Chikitsa sutra and Management of Sthanantara Dosha (Ashayapakarsha, Anuloma/Pratiloma gati of Dosha, Vimarga gamana of Dosha), Knowledge of Lina Dosha & its management, Diagnosis, Chikitsa Sutra and Management of Avarana and of Dhatu Pradoshaja diseases, Importance of Dosha, Dushya, Bala, Kaala, Agni, Prakriti, Vaya, Sattva Satmya, Desha, Ahara and stage of diseases in treating them.

Chikitsa Sutra and Management of ‘Samanyaja and Nanatmaja’ diseases

4. Detailed description of Dvividhopakrama (Santarpana and Apatarpana) and Shadavidhopakrama (Rookshana, Snehana, Swedana, Sthambhana, Langhana and Brihana). Detailed description of Shodhana, Shamana and Nidana Parivarjana. Knowledge of Aushadha matra, Sevan kaala and Anupana, Definition and Knowledge of Pathya-Apathya with examples of diseases of various systems

5. Derivation of the term ‘Manas’, its sthana (place), Guna (qualities) and Karma (functions).

Samanya Chikitsa Siddhanta of Manasa Roga.


7. Management of Vardhakyajanita vikara, Indriyapradoshoja vikara, Alziemers Disease, Sleep disorders, General debility.

8. General introduction and principles of Management of diseases produced by Genetic, Environmental and Iatrogenic factors. Disorders due to drug and Food allergy and their management and other allergic conditions.

Part B 50 Marks


1. Etiopathogenesis & relevant Ayurvedic and Modern management of following types of Fevers-Typhoid, Pneumonia, Pleurisy, Influenza, Mumps, Meningitis, Encephalitis, Tetanus, Yellow fever, Plague, Dengue Fever, Chikun Gunia, Leptospirosis, Viral Fever, Anthrax, Masurika (Small pox), Laghu Masurika (Chicken pox), Romantika (Measles), Swine Flu.

2. Chikitsa sutra and Management of the diseases of Rasavaha Srotas such as – Pandu(Anemia), Amavata (Rheumatoid Arthritis), Madatayaya, Hridroga (Cardiovascular diseases), Hridshoola, Hypotension, Hypertension.

3. Chikitsa sutra and Management of the diseases of Raktavaha Srotas such as – Raktapitta (Haemorrhagic Disorders), Kamala, Kumbhakamala, Halimaka, Daha, Mada, Murcha, Sanyasa, Vatarakta, Plihadosha, Yakrut dosha, Hepatiti, Chikitsasutraparishad.
Leukaemia, Kushta, Shvitra, Visarpa, Sheetapitta, Udarada, Kotha and medically manageable Kshudra Roga.

4. Knowledge of National Health programmes and the relevant Ayurvedic management of the following diseases enlisted by World Health Organisation- Malaria, Filaria, Kala Azar, Leprosy, Tuberculosis, AIDS.

5. Introduction of general principles of maintenance of health and management of diseases of following systems of Medicine- Yoga, Naturopathy, Unani, Siddha, Physiotherapy and Rehabilitation.

6. Diseases of different Endocrine Gland -such as Thyroid, Parathyroid, Pituitary, Pancreas and Adrenal Glands and their management.

7. General introduction, types and Management of diseases caused by Vyadhi Kshamatwa Hinata (Immuno deficiency disorders), Auto Immune Disorders.


PAPER II

Part A

1. Chikitsa sutra and Management of the diseases of Pranavaha Srotas such as - Kasa, Shwasa, Hikka, Rajayakshma, Urakshata, Parshwashoola, Bronchitis, Bronchiectasis, Emphysema and COPDs.

2. Chikitsa sutra and Management of the diseases of Udaka vaha Srotas such as - Shotha, Jalodara, Trishna, Water & Electrolyte Imbalance.

3. Chikitsa sutra and Management of the diseases of Annavaha Srotas such as – Agnimandya, Aruchi, Ajirna, Anaha, Atopa, Adhmana, Alasaka, Vilambika, Visuchika, Chardi, Grahani,Amlapitta, Gulma, Shoola, Bhasmaka and Acid peptic disorders.

4. Principles of treatment and management of Vata Vyadhi such as - Pakshavadha, Ekangavata, Sarvangavata, Ardita, Avbahuka, Kati Graha, Manyastambha, Gridhrasi, Vishwachi, Khalli, Khanja, Pangu, Padaharsha, Padadaha, Vatakantaka, Kroshtukashirsha and Types of Udavarta. Kampavata (Parkinsonism), Gatavata (Dhatu gata and Ashayagata), Avarana Vata and other Vata Rogas.


Part B

1. Chikitsa Sutra and Management of Mamsavaha Srotas and Medovaha Srotas such as- Gandamala, Galaganda, Mamsashosha, Arbuda, Apachi, Prameha, Sthoulya, Karshya, Diabetes Mellitus and Dyslipidaemia.

2. Chikitsa Sutra and Management of ‘Asthi and Majjavaha Srotas such as Asthimajja Vidradhi (Osteomyelitis), Asthisoushirya (Osteoporosis), Asthi kshaya(Osteopenia) Sandhigata Vata (Osteo Arthritis)

3. Chikitsa sutra and management of Shukravaha srotas such as Klaibya, shukralpata, shukradosha, kshina shukra and dhwajabhanga.

4. Chikitsa Sutra and Management of diseases of Mutravaha Srotas such as -Mutrakricha, Mutraghata, Ashmari, Cystitis, Nephritis ,Nephrotic Syndrome,BPH, Renal Failure.

5. Chikitsa Sutra and Management of diseases of Purishavaha Srotas such as – Atisara, Pravahika, Arsha, Purishaj Krimi, IBS and Ulcerative Colitis.
6. Chikitsa Sutra and Management of Sexually Transmitted Diseases, such as – Phiranga (Syphilis), Puyameha (Gonorrhoea), Upadamsha (Chanchroid), lymphogranuloma inguinale.


8. Concept of Manas and Manovahasrotas, Nidana and Chiktsa of the following disorders - Unmada-Apasmara-Atattvabhinivesha-, Chittodvega( Anxiety disorders), Stress induced disorders, Vishada(Depression), Somatoform and Mood disorders, Psychosexual Disorders. Importance of Daivavyapashraya, Sattwavajaya, Adravyabhuta Chikitsa. Medhya Rasayana in the management of Manasa Roga. Introduction to Bhuta Vidya with special reference to diagnosis and management of disorders.


10. Vajikarana - Derivation, definition, synonyms, necessity, benefits, importance of fertility, Symptoms of Shûkra (Semen), Vajikaran Dravya and Aushadhi. Management of Kliabya, Shukra Dosha and Dhwajabhanga, Properties, doses, methods of administration, ingredients and methods of formation of Rasayana & Vajikarana formulation. Classification and importance of Vajikarana Dravya

Distribution of practical Marks 100

1) Daily case record/Journal - 20 marks
2) Patient examination
   a) 1Long case - 20 marks
   b) 1 short case - 10 marks
3) Viva -voice
   a) Paper I - 25 marks
   b) Paper II - 25 marks

Reference books:

2. Ayurvediya Vyadhi Vigyana - Yadavji Trikamji
3. Roga Pariksha Vidhi - Priyavrat Sharma
4. Panchakarma Vigyan - Haridasas Sridhar Kasture
5. Cikitsadarsha - Pandit Rajesvardutta Shastri
6. Kayachikitsa I-IV - Ramaraksha Pathaka
7. Ayurved Nidan Chikitsa Siddhanta - Prof. R.H. Singh
8. Kayachikitsa Vol. I-IV. - Prof. Ajay Kumar
9. Davidson’s Principles and Practice of Medicine.
10. API Text Book of Medicine.
11. Harrison’s Text Bok of Medicine.
13. Panchkarma Illustrated by Dr. G.Srinivasacharya.
14. Other relevant publications on subjects concerned
4.2. PANCHAKARMA (BAMS)

Theory One Paper – 100 Marks
Practical Viva-voce – 50 Marks

Paper I

100 Marks

I. Introduction
1) Introduction to Panchakarma, Panchakarma and Shodhana and its importance or promotion of health, prevention and treatment of diseases.
2) Trividha Karma- Purva, Pradhana and Pashchata Karma in relation to Shodhana and their importance.
3) Indications of Shodhana, Shodhana according to Ritu; Āma and Shodhana
4) General precautions (Pariharya Vishaya) for Panchakarma
5) Specifications of Panchakarma theatre and necessary equipments

II. Snehana
1) Etymology and Definition of Sneha and Snehana
2) Snehayoni-Sthavara and Jangama: General knowledge of Ghrita, Taila, Vasa and Majja with their specific utility and actions
3) Achcha and Pravicharana of Sneha: Yamaka, Trivrit and Maha Sneha
4) Snehapaka
5) Indications and contraindications for Snehana

Two Types of Snehana: Bahya and Abhyantara Snehana

Bāhya Snehana
Methods, indications, contraindications of the following types of Bahyasnehana; Abhyanga, Mardana, Unmardana, Pādāghāta, Avagaha, Samvāhana, Udvartana, Utsādana, Karna Purana & Akshi Tarpana, Māstiskya, Lepa, Talam, Takra Dhārā, Gandusha and Kavala.
Murdhni Taila: Siro-Abhyanga, Shiro Seka/dhārā, Siro Pichu and Siro-Basti

Ābhyantara Snehana
Three Types of Ābhyantara Snehana: Shodhanārtha, Shamanārtha and Brimhanārtha Snehana, Shamanārtha and Brimhanārtha Snehana their method, dose and utility

Shodhanārtha Snehana
1. Importance of Pāchana in Shodhanārtha Snehana
2. Various dose schedules for Shodhanārtha Snehana; Hraseeyasi, Hrasva, Madhyama and Uttama Mātrā, Ārohana Mātrā
3. Methods of Shodhanārtha Snehana, Sadya Snehana
4. Consideration of Agni and Koshtha in Snehana
5. Anupāna of Sneha
6. Samyak Yoga, Ayoga and Atiyoga of Snehana, Sneha Vyāpat & their management according to Ayurveda & Modern Medicine
7. Diet and regimen during Snehana
8. Snehana Kārmukata (mode of action)
III. Svedana
1) Etymology and Definition of Sveda and Svedana
2) Classifications of Sveda/Svedana
3) Indications and contraindications of Svedana
4) Ten Types of Niragni Svedana
5) Knowledge of 13 types of Sagni Svedana
6) Detailed Knowledge about Utility of the following Svedana procedures:
   Sankara/Pinda Sveda-Ruksha and Snigdha Sveda Patrapinda Sveda, Shashtika Shalipinda Sveda, Nadi Sveda, Bashpa Sveda Avagaha Sveda, Parisheka Sveda, Pizichil Upanaha Sveda Anna Ipe Local Basti such as Kati Basti, Janu Basti and Greeva Basti General precautions during Sagni Svedana
7) Samyak Yoga, Ayoga and Atiyoga of Svedana
8) Vyapat of Svedana and their Management according to Ayurveda & Modern Medicine
9) Diet and management during and after Svedana
11) General Knowledge about current Sudation techniques Sauna bath, Steam bath, Infrared therapy

IV. Vamana Karma
1. Etymology, definition and importance of Vamana Karma
2. Utility of Vamana Karma in health and disease
3. Indications and Contraindications for Vamana
4. General knowledge of Vamana and Vamanopaga drugs; properties, actions, preparations, doses and method of administration of Madanaphala
5. Purva Karma of Vamana: Pāchana, Abhyantara Snehana and diet
6. Assessment and Management of one gap day-Abhyanga & Svedana & diet, special Kapha increasing diet
7. Assessment and management on Morning of Vamana day
8. Vamana Dravya Sambhāra
9. Vamaka Yoga, Anupana, dose and method of administration
10. Administration of Vamanopaga Dravya such as milk, sugarcane juice, Yashtimadhu decoction
11. Method of Vamana Karma and management during Vamana Karma & observations
12. Symptoms of Samyak Yoga, Ayoga and Atiyoga of Vamana Karma
13. Types of Shuddhi-Hina, Madhya and Pravara and accordingly Samsarjana Krama
14. Post Vamana management
15. Vamana Vyapat and their management with Ayurveda and modern drugs
16. Pariharya Vishaya
17. Vamana Karmukata (Mode of action).

V. Virechana Karma
1. Etymology, definition and importance of Virechana Karma
2. Utility of Virechana Karma in health and disease
3. Indications and Contraindications for Virechana
4. Classification of Virechana Drugs
5. General knowledge of single and compound Virechana drugs; properties, actions, preparations, doses in relation to Koshtha and method of administration of Trivritra, Argvadha, Eranda Taila
6. Significance of Vamana before Virechana
7. Purva Karma of Virechana: Pachana, Abhyantara Snehana and diet
8. Management of 3 gap days-Abhyanga & Svedana & diet
9. Management on Morning of Virechana day
10. Preparation of Virechana Kalpa, Anupana, dose and method of its administration
11. Method of Virechana Karma and management during Virechana Karma & observations
12. Symptoms of Samyak Yoga, Ayoga and Atiyoga of Virechana Karma
13. Post Virechana management
14. Types of Shuddhi-Hina, Madhya and Pravara and accordingly Samsarjana Krama
15. Virechana Vyāpat and their management with Ayurveda and modern drugs
16. Pariharya Vishaya
17. Virechana Kārmukatā (Mode of action)

VI. Basti Karma
1. Etymology, definition and importance of Basti as Ardha-Chikitsa
2. Utility of Basti Karma in health and disease
3. Basti Yantra, Putaka, Netra, alternative Basti Yantra-enema can, enema syringe, modified plastic/rubber bag for Putaka, Netra Doshā
4. Classifications of Basti, relation of Virechana and Niruha Basti and vice versa, importance of Karma, Kāla and Yoga Basti schedules along with their utility.
5. Purva Karma of Basti
6. Diet before, during and after Basti
7. Niruha Basti, its etymology, synonyms, definition, classifications, sub-classifications & indications and contraindications. Dose of Niruha Basti according to age and accordingly calculation of Anuvasana Basti dose
8. Contents and method of preparation and administration of Niruha Basti and observations
9. Samyak Yoga, Ayoga and Atiyoga of Niruha. Pratyagmana Kāla and management of its complications
10. Anuvasana Basti, its etymology, definition, synonyms, classifications, contents, Dose and indications and contraindications
11. Method of preparation and administration of Anuvasana Basti
13. Post Basti management and Pariharya Vishaya and kala
14. Common basti Vyāpat and their management with Ayurveda and modern drugs
15. Basti Kārmukatā (Mode of action).
16. Knowledge of following types of Basti:
   Madhutailika Basti, Erandmuladi Basti, Yapanā Basti, Pichchha Basti, Kshira Basti, Kshara Basti, Vaitarana Basti, Matra Basti
17. Uttara Basti, its definition, indications and contraindications, Yantra, Purva Karma, drug preparation, dose, method of administration in male and females, observations, complications and their management

VII. Nasya
1) Etymology, definition, introduction & Significance of Nasya Karma.
2) Knowledge of general Dravya used for Nasya Karma,
3) Classifications and sub-classifications of Nasya with knowledge of each type
4) Indications and contraindications of Nasya
5) Time of administration of Nasya and Mātra.
6) Methods of Nasya:
   Purva Karma: Preparation of Patient.
   Pradhana Karma: Administration and observations of Nasya.
   Pashchat Karma: Pariharaya Vishaya and Kāla, Diet and regimen before, during and after Nasya Karma
7) Symptoms of Samyak-yoga, Ayoga and Atiyoga of Nasya, Nasya Vyāpat and their management.
8) Detail knowledge of Navana-Marsha and Pratimarsha, Avapeedaka, Dhmapana and Dhuma Nasya
9) Nasya Karmukata (mode of action)

VIII
Raktamokshana
Definition, importance and classifications of Raktamokshana with general knowledge of each type
Jalaukavacharana: Indications and contraindications of Jalaukavacharana, various types of Jalauka. Method of Jalaukavacharana, management before, during and after Jalaukavacharana. Symptoms of Samyak, Ayoga and Atiyoga and Vyapat of Raktamokshana and their management with Ayurveda and Modern medicines. Knowledge of emergency management of complications such as water & electrolyte imbalance, shock, bleeding.

Practical Work:
Batch wise two hours daily duty in Panchakarma theatre
Observations of at least 5 Karma each of Snehana, Svedana, Vamana, Virechana, Basti and Nasya
Performance of at least 5 Karma each of Snehana, Svedana, Vamana, Virechana, Basti and Nasya under guidance of the teacher

Distribution of Marks
1. Practical Record of 25 procedures 05 Marks
2. Long Procedure 10 Marks
3. Long Procedure Viva 05 Marks
4. Short Procedure 08 Marks
5. Viva on Short Procedure 02 Marks
6. General Viva-voce 20 Marks
Total 50 Marks

Reference Books
1. Charak Samhita with Commentary of Ayurveda Dipika by Chakrapanidatta & Jalpakalpataru by Gangadhara
2. Sushrut Samhita with the Sushruta Nibandha Samgraha Commentary of Dalhana & Nyayachandrika Panjika of Gayadasa on Nidana Sthana
3. Ashtanga Hridaya with Sarvanga Sundara & Ayurveda Rasayana Commentaries
4. Ashtanga
5. Ayurvediya Panchakarma Chikitsa Dr Mukundilal Dwivedi
6. Panchakarma Vigyan Dr Haridas Shreedhar Kasture
7. Illustrated Panchakarma Dr.G Srinivasa Acharya
8. Clinical Panchkarma (English) Dr. P. Yadaiah
9. Prayogika Panchkarma (Hindi) Dr. P. Yadaiah
10. Vividya Vyadhiyome Panchkarma (Hindi) Dr. P. Yadaiah
11. The Panchkarma Treatment of Ayurveda with Kerala Specialties Dr. T.L. Devaraj
12. Panchkarma Therapy Dr. R.H. Singh
13. Ayurveda-Principles and Panchakarma Practice Dr Mandip R. G. & Prof. Gurdip Singh
14. Principles and Practice of Basti Dr. Vasudevan & Dr. L. Mahadevan
15. Principles and Practice of Panchakarma Vaidya Vasant Patil
16. Harrison’s Principle of Internal Medicine
17. Guyton’s Physiology
4.3 SHALYA TANTRA

Theory Two Papers – 100 Marks Each
Practical - Viva voce – 100 Marks

PAPER – I

Part - A

100 Marks

50 Marks

Definition of Shalya, Shalya Tantra and its importance. Introduction to Shalya Tantra: Historical background and progress made.

- **Target** - Fluency in textual reading and comprehension.
- Preferable targets - Know recent developments and controversies.

Description of Yantra, Shastra, Anushastra: Definition, number, types, uses, Dosha, Guna, Karma. Relevant modern instruments.

- Target - Basic understanding of the concepts of Yantra and Shastra. Acquaintance with commonly used surgical instruments. Knowledge of textual descriptions.
- Preferable targets - Knowledge about currently used surgical instruments, their specifications, procurement sources etc.

Nirjantukarana / Sterilization: Methods, types and its role in surgical practice.

- Target - Basic surgical discipline of maintaining asepsis.
- Preferable targets- Knowledge of recently developed chemicals, instruments for sterilization.

Sangyaharan / Anaesthesia: Definition and Types.

1. **Local anaesthesia** – Drugs, Techniques, Indications, Contraindications, Complications and their Management.
2. **Regional and General anaesthesia**- Drugs, Techniques, Indications, Contraindications, Complications and their Management.

- Target- Basic knowledge of the drugs and instruments of anaesthesia. To observe the process of induction, monitoring and recovery.
- Preferable targets- Assisting and handling anaesthesia.

Trividha Karma – Purva Karma, Pradhana Karma and Paschat Karma.

- Target- Capability to identify conditions which can affect the outcome of surgery in pre, intra and post-operative period.
- Preferable targets- Experience of handling incidents.

Ashtavidha Shastra Karma - Surgical procedures.

- Targets- Appreciation and comprehension of concepts and indications of different procedures.
- Preferable targets –Hands on experience of surgical procedures.

Yogyavidhi - Experimental Surgery.

- Preferable targets- Hands on training on mannequins.

Marma: Nirukti, types, description and importance.

- Target –Clinical application of concepts of marma.
- Preferable targets- Study of relevance of marma in the light of current anatomical and surgical knowledge.

Kshara and Kshara Karma:

1. **Nirukti, Pradhanyata, Guna, Dosha, Karma, Prakara, Yogya, Ayogya, Procedure, Upadrava and Chikitsa**
2. Kshara nirmana vidhi, knowledge of Kshara Varti, Taila and Pich
3. **Kshara Sutra** – Preparation, Indications, Contraindicatio
application, Complications and their Management.

- Target – Capability to identify and practice the use of ksharas, kshara sutra in common clinical conditions.
- Preferable targets – Broader knowledge of current trends and ongoing researches in kshara application.

Agnikarma: Mahatva, Upakarana, Vidhi, Akruti bheda, Yogya, Ayogya and Upadrava Chikitsa.
Contemporary techniques and tools of Agnikarma.

- Target - Capability to appreciate the clinical indications and comprehend Agnikarma procedure.
- Preferable targets - Hands on experience of use of cautery in surgical practice.


- Target- Capability to appreciate and comprehend clinical indications of Jaloukavacharana and other Raktamokshana procedures.
- Preferable targets - Uses of bloodletting in current therapy.

Bandha Vidhi – Prayojana, Dravya, Indications, Contraindications, Prakara, Upadrava, Pichu, Plota, Kavalika and Vikeshika.

- Target- Hands on experience of techniques of bandaging.
- Preferable targets - New generation of bandaging and splintage tools.

Sandhana Karma: Karna, Nasa and Oshtha Sandhana Vidhi. Principles and procedures of reconstructive and cosmetic surgery.

- Target - Understanding concepts of Sushruta regarding Sandhana.
- Preferable targets - Basic concepts of reconstructive surgery.

Pranasta Shalya and Nirharana Upaya.

- Target – Importance of concepts of Sushruta in the management of Shalya and concerns of patient safety. Identification and management of foreign bodies.
- Preferable targets - Current concepts and diagnostic tools of dealing with foreign bodies.

Fluid, Electrolyte, Acid Base Balance and Nutrition:

i. Introduction of physiology of fluids and electrolytes.
ii. Dehydration and over hydration.
iii. Specific electrolyte loss, Acidosis, Alkalosis, Symptomatology and Management.
iv. Electrolyte changes in specific diseases like pyloric stenosis, intestinal obstruction and anuria.
v. Various replacement fluids in surgery, mode of administration and complications.

- Target – Capability to identify and manage fluid and electrolyte imbalance. Ability to administer parenteral fluid.
- Preferable targets - Advanced techniques of fluid and electrolyte assessment and management.

Rakta Mahatwa, Raktsrava / Haemorrhage: Prakara and Lakshana.

i. Raktastambhana – Haemostasis.
iii. Component therapy.

- Target-Knowledge of achieving haemostasis in haemorrhage.
- Preferable targets - Detailed knowledge of blood bank techniques.

Antibiotics, analgesics, anti-inflammatory and emergency drugs in surgical practice.
• Target – Working knowledge of commonly used drugs.
• Preferable targets - Advanced pharmacological study of the above drugs.

Diagnostic techniques – X-ray, Imaging techniques, Ultrasonography, CAT Scan, MRI, Biopsy / Cytological study.
• Target- Knowledge of proper indications for optimum investigational tools and their interpretation.
• Preferable targets - Capability to work independently in the field of diagnostic techniques.

Part - B

Shat Kriyakala in surgical practice.
• Target- Clinical utility of the concepts.
• Preferable targets - Applied aspects of Kriyakalas in the light of current concepts of pathogenesis.

Nirukti, Nidana, Samprapti, Prakara, Lakshana, Sadhya-asadhyata, Upadrava and Chikitsa of the following disorders.

i. Vranashotha - Inflammation
ii. Vidhradi - Abscess
iii. Pidika - Boils
iv. Nadi Vrana - Sinus / Fistulae
v. Vrana Granthi - Keloid / Hypertrophic scar
vi. Marmagata - Shock
viii. Granthi - Cyst
ix. Arbuda - Tumour
• Target-Clinical application of the concepts.
• Preferable targets - Hands on experience of management of different conditions.

Vrana – Nirukti and Prakara

ii. Vrana Chikitsa – Pathya-apathy and Shashti Upakrama,Vranitagara and Rakshakarma.

iii. Agantuja Vrana :
   b. Management of bites and stings.

iv. Dagdha Vrana – Burns and scalds.
v. Ulcer - Types and their management.
vi. Wound healing stages and their management.

vii. Pramehapidaka - Diabetic carbuncle and wounds.
• Target - Clinical application of the concepts.
• Preferable targets - Hands on experience of management of different conditions.

• Target - Clinical application of the concepts.
• Preferable targets - Hands on experience of management of different conditions.

• Target - Clinical application of the concepts.
• Preferable targets - Hands on experience of management of different conditions.

Sira Vikara - Venous disorders – Superficial and Deep venous thrombosis, Haemangioma, Varicose veins - Diagnosis and their Management.
• Target - Clinical application of the concepts.
• Preferable targets - Hands on experience of management of different conditions.

• Target - Clinical application of the concepts.
• Preferable targets - Hands on experience of management of different conditions.

Snyau Vikara - Diseases of tendons and ligaments – Tennis elbow, Ganglion and their Management.
• Target - Clinical application of the concepts.
• Preferable targets - Hands on experience of management of different conditions.

Care of AIDS - HIV and hepatitis infected patients.
• Target - Knowledge of safety precautions.

PAPER - II

Part - A

100 Marks

50 Marks

Bhagna – Skeletal injuries: Prakara including pathological fracture, Samanya Lakshana, Upadrava and Chikitsa.
Description of fracture of following bones with Clinical features, Diagnosis, Complications and Management – scapula, clavicle, humerus, radius, ulna, femur, patella, tibia and pelvis bones.
Sandimoksha - Dislocation: Dislocation of following joints with Clinical features, Diagnosis, Complications and Management of shoulder, elbow and hip.
• Target - Clinical utility of the concepts.
• Preferable targets - Hands on experience of management of different conditions.

Diseases of bone: Aetiopathogenesis, Classification, Clinical features, Diagnosis, Complications and Management of Congenital anomalies, Osteomyelitis, Cysts, Tumours and Tuberculosis.
• Target - Clinical utility of the concepts.
• Preferable targets - Hands on experience of management of different conditions.

Cranio-cerebral injuries: Mechanism, Pathology, Classification, Investigations, Complications and primary management.
• Target - Clinical utility of the concepts.
• Preferable targets - Hands on experience of management of different conditions.

Diseases of Spine: Mechanism, Pathology, Classification, Investigations, Complications and primary management of Tuberculosis, Ankylosing Spondylitis and Disc prolapse.
• Target - Clinical utility of the concepts.
• Preferable targets - Hands on experience of management of different conditions.

Diseases of breast: Aetiopathogenesis, Classification, Clinical features, Diagnosis, Complications and Management of Sthana Vidradhi - Breast abscess and Sthana Arbuda - Breast tumours.
• Target - Clinical utility of the concepts.
• Preferable targets - Hands on experience of management of different conditions.

Diseases of chest: Aetiopathogenesis, Classification, Clinical features, Diagnosis, Complications and Management of Chest injury, Pleural effusion, Pleurisy and Tumours.
• Target - Clinical utility of the concepts.
• Preferable targets - Hands on experience of management of different conditions.
Diseases of esophagus: Aetiopathogenesis, Classification, Clinical features, Diagnosis, Complications and Management of Congenital anomalies, Oesophagitis, Varices, Ulcer and Tumours.
- Target - Clinical utility of the concepts.
- Preferable targets - Hands on experience of management of different conditions.
Gulma Roga - Nidana, Prakara, Lakshana, Upadrava and Chikitsa.
Shoola vyadhi - Nidana, Prakara, Lakshana, Upadrava and Chikitsa.
- Target - Clinical utility of the concepts.
- Preferable targets - Hands on experience of management of different conditions.

Udara Roga: Aetiopathogenesis, Classification, Clinical features, Diagnosis, Complications and Management of Jalodara - Ascites, Chidrodara – Perforation, Peritonitis and Badhagudodara.
- Target - Clinical utility of the concepts.
- Preferable targets - Hands on experience of management of different conditions.

Diseases of stomach and duodenum: Aetiopathogenesis, Classification, Clinical features, Diagnosis, Complications and Management of Pyloric Stenosis, Peptic Ulcer and Tumours.
- Target - Clinical utility of the concepts.
- Preferable targets - Hands on experience of management of different conditions.

Diseases of small intestine: Aetiopathogenesis, Classification, Clinical features, Diagnosis, Complications and Management of Tuberculosis, Obstruction and Perforation.
- Target - Clinical utility of the concepts.
- Preferable targets - Hands on experience of management of different conditions.

Diseases of large intestine - Aetiopathogenesis, Classification, Clinical features, Diagnosis, Complications and Management of Tuberculosis, Obstruction, Perforation, Tumours, Appendicitis, Crohn’s disease and Ulcerative Colitis.
- Target - Clinical utility of the concept.
- Preferable targets - Hands on experience of management of different conditions.

- Target - Clinical utility of the concepts.
- Preferable targets - Hands on experience of management of different conditions.

Abdominal injuries and their management.
- Target - Clinical utility of the concepts.
- Preferable targets - Hands on experience of management of different conditions.

Part – B

- Target - Clinical utility of the concepts.
- Preferable targets - Hands on experience of management of different conditions.

Diseases of Gallbladder: Aetiopathogenesis, Classification, Clinical features, Diagnosis, Complications and Management of Cholecystitis, Cholelithiasis, Obstructive jaundice and Tumours.
- Target - Clinical utility of the concepts.
- Preferable targets - Hands on experience of management of different conditions.
Diseases of Pancreas: Aetiopathogenesis, Classification, Clinical features, Diagnosis, Complications and Management of Pancreatitis, Cysts of Pancreas and Tumours.
- Target - Clinical utility of the concepts.
- Preferable targets - Hands on experience of management of different conditions.

Diseases of Spleen – Aetiopathogenesis, Classification, Clinical features, Diagnosis, Complications and Management of Pleehodara – Splenomegaly and Splenic rupture.
- Target - Clinical utility of the concepts.
- Preferable targets - Hands on experience of management of different conditions.

Diseases of Kidney and Ureters - Aetiopathogenesis, Classification, Clinical features, Diagnosis, Complications and Management of Congenital anomalies, Polycystic kidney, Injuries, Perinephric abscess, Calculus and Neoplasms.
- Target - Clinical utility of the concepts.
- Preferable targets - Hands on experience of management of different conditions.

Diseases of Urinary bladder – Aetiopathogenesis, Classification, Clinical features, Diagnosis, Complications and Management of Congenital anomalies, Ashmari - Vesical Calculus, Cystitis and Neoplasms.
- Target - Clinical utility of the concepts.
- Preferable targets - Hands on experience of management of different conditions.

Diseases of Prostate - Aetiopathogenesis, Classification, Clinical features, Diagnosis, Complications and Management of Prostatitis, Prostatic abscess, Benign Enlargement of Prostate and Carcinoma of Prostate.
- Target - Clinical utility of the concepts.
- Preferable targets - Hands on experience of management of different conditions.

Diseases of Urethra – Aetiopathogenesis, Classification, Clinical features, Diagnosis, Complications and Management of Urethritis, Stricture and Rupture.
- Target - Clinical utility of the concepts.
- Preferable targets - Hands on experience of management of different conditions.

Diseases of Penis: Aetiopathogenesis, Classification, Clinical features, Diagnosis, Complications and Management of Congenital anomalies, Niruddhaprakasha - Phimosis, Parivartika -Paraphimosis, Avapatika - Prepuceal ulcer, Arbuda-Tumours and Lingarsha - Penile Warts.
- Target - Clinical utility of the concepts.
- Preferable targets - Hands on experience of management of different conditions.

Diseases of Scrotum and Testis: Aetiopathogenesis, Classification, Clinical features, Diagnosis, Complications and Management of Epididymo-orchitis, Epididymal cyst, Scrotal filariasis, Shukrashmari - Seminal calculus, Torsion of testis, Ectopic testis, Undescended testis and Tumours.

Vriddhi Roga: Aetiopathogenesis, Classification, Clinical features, Diagnosis, Complications and Management of Mutravriddhi – Hydrocele.
- Target - Clinical utility of the concepts.
- Preferable targets - Hands on experience of management of different conditions.

Antra Vriddhi – Aetiopathogenesis, Classification, Clinical features, Diagnosis, Complications and Management of Hernia - Inguinal, Femoral, Epigastric, Umbilical, Incisional and rare forms of Hernia.
- Target - Clinical utility of the concepts.
- Preferable targets - Hands on experience of management of different conditions.
PRACTICALS

Content of Practicals:
1. Identification, uses, demonstration of surgical instruments and methods of sterilization.
2. Training of case taking, bed side clinicals and case presentation.
3. Demonstration and Practical training in Anaesthesia.
4. Training to develop skills in following Parasurgical and other procedures
   i. Kshara Karma
   ii. Agnikarma
   iii. Kshara Sutra
   iv. Rakthamokshana
   v. Application of bandages and splints
   vi. Catheterization
   vii. Wound management procedures like Parisheka and Patradana
   viii. Ryle’s tube aspiration
   ix. Injections - Intramuscular / Intravenous / Subcutaneous / Intradermal
   x. Incision and drainage of abscess
   xi. Suture of open wounds
5. Observation of following procedures
   i. Circumcision
   ii. Hydrocele
   iii. Hernial repair
   iv. Vasectomy
   v. Haemorrhoidectomy
   vi. Fistulectomy
   vii. Fissurectomy
   viii. Appendectomy
   ix. Cholecystectomy
6. Training of Surgical Emergencies and Management.

Clinical Training (Indoor and Outdoor) 09 Months
- Shalya (Samanya) 03 Months (atleast one month in OT)
- Shalya (Kshara and Anushastra Karma) 03 Months (atleast one month in OT)
- Asthi and Sandhi Chikitsa (Orthopaedics and Trauma) 02 Months
- Anaesthesia 15 days
- Radiology 15 days

Distribution of Marks
1) Daily records - 10 Marks
2) Instruments - 20 Marks
3) Short case - 10 Marks
4) Long case - 20 Marks
5) Viva – voce - 40 Marks
Total - 100 Marks

Reference Books
1. Sushruta Samhita
2. Ashtanga Sangraha
3. Ashtanga Hridaya
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<tr>
<th>No.</th>
<th>Title</th>
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<td>4.</td>
<td>Charaka Samhita</td>
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<td>5.</td>
<td>The Surgical instruments of the Hindus</td>
<td>Girindranath Mukhopadhyaya</td>
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<td>6.</td>
<td>Shalya Tantra Samuchchaya</td>
<td>Pandit Ramadesh Sharma</td>
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<td>Shalya Vigyan (Part 1-2)</td>
<td>Dr. Surendra Kumar Sharma</td>
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<td>Shalya Samanvaya (Part 1-2)</td>
<td>Vd. Anantaram Sharma</td>
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<td>9.</td>
<td>Shalya Pradeepika</td>
<td>Dr. Mukund Swaroop Verma</td>
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<td>10.</td>
<td>11. Clinical Shalya Vigyan</td>
<td>Dr. Ram Nath Dwivedi</td>
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<td>12.</td>
<td>Bhagna Chikitsa</td>
<td>Dr. Akhilanand Sharma</td>
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<tr>
<td>13.</td>
<td>Kshara sutra management in anorectal ailments</td>
<td>Dr. S.K. Sharma, Dr. K.R. Sharma and Dr. Kulwant Singh.</td>
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<td>14.</td>
<td>Anorectal diseases in Ayurveda</td>
<td>Dr. Sizoria and Dr. Praveen Kumar Chowdary</td>
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<td>15.</td>
<td>Adhunika Shalya Chikitsa Siddanta</td>
<td>Dr. Katil Narshingham Udupa</td>
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<td>16.</td>
<td>Agnikarma Technology Innovation</td>
<td>Dr. P.D. Gupta</td>
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<td>17.</td>
<td>Shalya Tantra Ke Siddhant</td>
<td>Dr. K.K. Takral</td>
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<td>18.</td>
<td>Recent advances in the management of Arshas / Haemorrhoids</td>
<td>Haemorrhoids - Dr. P. Hemantha Kumar</td>
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<td>19.</td>
<td>Arsha Evum Bhagander Mein sutra Avacharan</td>
<td>Vd. Kanak Prasad Vyas</td>
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<td>20.</td>
<td>Kshara Sutra</td>
<td>Dr. S.N. Pathak</td>
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<td>21.</td>
<td>Surgical ethics of Ayurveda</td>
<td>Dr. D.N. Pande</td>
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<td>22.</td>
<td>Bailey and Love’s Short Practice of Surgery</td>
<td>Norman S. Williams, Charles V. Mann and R.C.G. Russell</td>
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<td>23.</td>
<td>Clinical methods in surgery</td>
<td>S. Das</td>
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<td>24.</td>
<td>Textbook of Operative Surgery</td>
<td>S. Das</td>
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<td>25.</td>
<td>Shalya Vigyan (Sachitra)</td>
<td>Anantram Sharma</td>
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<td>26.</td>
<td>Anushastra Karma</td>
<td>Dr. D.N. Pande</td>
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<td>27.</td>
<td>Concept of Vrana is Ayurveda</td>
<td>Dr. Lakshman Singh</td>
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<td>28.</td>
<td>Significance for Poorva Karma in Surgical Patient</td>
<td>Dr. Lakshman Singh</td>
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<td>29.</td>
<td>Sangyaharan Prakash</td>
<td>Dr. D.N. Pande</td>
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<td>30.</td>
<td>A concise Text Book of Surgery</td>
<td>S. Das</td>
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<td>31.</td>
<td>A manual on Clinical Surgery</td>
<td>S. Das</td>
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<td>32.</td>
<td>A System of Surgical Diagnosis</td>
<td>T.N. Patel</td>
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<tr>
<td>33.</td>
<td>A Practical Guide to Operative Surgery</td>
<td>S. Das</td>
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<tr>
<td>34.</td>
<td>Drugs and Equipment for Anaesthesia</td>
<td>Arun Kumar</td>
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<td>35.</td>
<td>Manual of Surgical Instruments</td>
<td>M.M. Kapur</td>
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<td>37.</td>
<td>Recent trends in the management of Arshas / Haemorrhoids</td>
<td>Dr. P. Hemantha Kumar</td>
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<td>38.</td>
<td>Primary Anaesthesia</td>
<td>Maurice King</td>
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<td>39.</td>
<td>Synopsis of Anaesthesia</td>
<td>Lee</td>
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<td>40.</td>
<td>Clinical Anatomy/ Surgical Anatomy</td>
<td>John E. Skandalakis</td>
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<td>41.</td>
<td>Surgical Instruments of the Hindus</td>
<td>Girindharnath Mukopadhyay</td>
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<td>42.</td>
<td>Outline of Orthopedics</td>
<td>John Crawford Adams and David Hamblen. L</td>
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<td>43.</td>
<td>Outline of Fracture</td>
<td>John Crawford Adams</td>
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<td>44.</td>
<td>Recent trends in the management of Bhagandara / Fistula-in-ano</td>
<td>Dr. P. Hemantha Kumar</td>
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<td>45.</td>
<td>Principles and Practice of Agnikarma</td>
<td>Dr. Anand Kumar and Dr. Kanchan Shekokar</td>
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<td>46.</td>
<td>Manipal Manual of Surgery</td>
<td>Dr. Rajgopal Shenoy</td>
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</table>
4.4 SHALAKYA TANTRA

Theory Two Papers – 100 Marks Each
Practical/Viva voce – 100 Marks

Netra Roga Vignyan

Paper I

I. Introduction 10 hrs
a) Shalakyatantra nirukti, Parichayam, Ithihasam
b) Netra rachana shariram (Mandala, Patala, Sandhi, Drushti Vichara) and Netra Kriya Sharira alongwith modern view.
c) Netrapariksha, Netraparikshanopayogi Yantra Shastradi gyanam.
d) Netrarognanam – Samanya Hetu (Nija and agantuja), Purvarupa, Samprapti, Rupa and Chikitsa.
e) Classification of Netraroga and its importance.

II. Netra Samanya and Visheshta Chikitsa - Kriya Kalpa 15 hrs
a) Seka, Aschyotana, Pindi, Vidalaka Tarpana, Putapaka, Anjana and importance of Panchkarma in Netra Chikitsa.
b) Basic fundamentals of Netra Shastra Chikitsa e.g. Purva-Pradhana- Paschat karma, Ama-Pachyaman-Pakva Vrana shotha, Vranitopasana, Pranashtashalya, & Vranbandhana. Methods and concepts of sterilization, asepsis and antisepsis as per ancient and modern point of view.
c) Basic applied knowledge of Ashtavidha shastrakarma , agni, kshara, raktamokshana in Nerta rogas.
d) Essential diagnostic and therapeutic modern pharmacological agents required in Netra Chikitsa

III. Sandhigata Roga 5 hrs
Number of sandhigata rogas, detailed etiology, pathology, clinical features and management of diseases of Pooyalasa and srava.
Study of krimi granthi, parvani and alaji.
Study of Acute and Chronic Dacryocystitis, Epiphora, Blepharitis - aetiology, pathology, signs & symptoms, differential diagnosis and their medical and surgical management.

IV. Vartmagata Roga 10 hrs
Number of vartmagata rogas, and detailed knowledge of etiology, pathology, clinical features and management of diseases of Vartma.
Study of Anjanananamika, Utsangini, Lagana, Vatahata vartma, Pakshma kopa, Sikta vartma, Pothaki, Klinna vartma, Krichhronmeelana and Kukunaka.
Knowledge of Vartmarbuda, Utklishta vartma, Nimesh, Pakshmashata, Vartmarsha
Knowledge of Hordeolum, Ptosis, Trachoma, Trichiasis, Entropion, Ectropion - Etiology, signs and symptoms differential diagnosis and their medical and surgical management

V. Shuklagata Roga 8 hrs
Number of Shuklagata rogas,detailed knowledge of etiology, pathology, clinical features and management of Arma, Arjuna and shuktika
Knowledge of Sira pidika , Sira jala ,Pishtaka, Balasgrathita.
Study of Pterygium, Scleritis, Episcleritis, Sub-Conjunctival Hemorrhage.
VI. Krishnagata Roga 10 hrs
Number of krishnagata rogas, detailed knowledge of etiology, pathology, clinical features, differential diagnosis, complications and Management of savrana/kshata shukla, avrana shukra
Knowledge of Sira shukla, Akshipakatyaya and Ajakajat.
Knowledge of Corneal ulcer, Corneal Opacity, Uveitis, Acute Iridocyclitis, Staphyloma, their aetiology, pathology, symptoms, differential diagnosis, complications and management.

VII. Sarvagata Roga 16 hrs
Number of Sarvagata rogas, detailed knowledge of etiology, pathology, clinical features, complications, differential diagnosis and Management of Sarvagata Roga of Abhishyanda Adhimantha & Hatadhimantha and Shushhkakshipaka.
Knowledge of Amloshit, Vata paryaya, Anyato vata, Sashopha & Ashophakshipaka- Pilla roga, Sirotapata and Siraharsha.
Knowledge of Conjunctivitis, Glaucoma, Dry Eye Syndrome – etiology, pathology, clinical features, differential diagnosis, complications and their management.

VII. Drishtigata Roga 18 hrs
Number of Drishtigata rogas detailed knowledge of etiology, pathology, clinical features, differential diagnosis and management Timira, Kacha and Linga nasha.
Knowledge of Abhighataja, sanimittaja & Annimittaja Lingnasha Doshandhya/Kaphavidagdha drishi/Naktandhya, Ushna vidagdha, Pittavidagdha drishti, Dhumadarshi, Hriswajadya, Gambhirika, Nakulandhya, Nayanabhighata.
Knowledge of Refractive errors, Cataract – etiology, pathology, clinical features, differential diagnosis, complications and their management
Study of Eale’s disease, Hypertensive & Diabetic Retinopaties, Age related Macular degeneration, Strabismus, Retinitis pigmentosa, night blindness, Amblyopia, Central serous retinopathy, Optic Neuritis and Optic atrophy

III. Miscellaneous Diseases 8 hrs
Xerophthalmia and other malnutritional eye disorders.
Knowledge of ocular trauma and their management.
Introduction to Eye bank, Eye donation, Corneal Transplantation Netraswasthyarakshanopaya- Preventive Ophthalmology and Community Ophthalmology

Shira - Karna- Nasa- Mukha rogas

PAPER II 100 Marks

I Samanya Chikitsa 10 hrs
Basic instruments used in the diagnosis and treatment of diseases of Shira, Ear, Nose & Oral cavity.
Study of therapeutic procedures like Sveda, Kavala, Gandusa, Dhuma, Murdhni Taila, Nasya, Pratisarana, Karna Purana, karna prakshalana, nasa prakshalan Mukha Lepa, ashtavidha shastrakarma and anushastrakarma used in the treatment of Shira, Ear, Nose, Dental, Periodontal, Oral cavity and Throat diseases.
II Shiro Roga  
12 hrs
Importance and Superiority of Shira.
Generalised and specific etiology, pathology, classification, clinical features, differential diagnosis, complications and management of diseases of Shira and Kapala as detailed in Ayurveda.
Detailed study of Vataja, Pittaja, Kaphaja shirashoola, Suryavarta, Ardhavabhedaka.
Knowledge of Raktaja Shirah shoola Krimija & Kshayaja shiraha shoola Kshyaja shiraha shoola & Ananta vata, Indralupta, Darunaka Khalitya, Palitya and other Kapalagata roga.
Detatiled study of Headache, Migraine its differential diagnosis and treatment along with diseases of Scalp.

III Karna Roga  
23 hrs
Detailed study of Rachana and kriyasharir of Karna (Ear) & Shravanendriya as per Ayurvedic and modern view, Examination of Ear.
Detailed study of etiology, pathology, classification, clinical features and management of diseases of Karna – karna shool, krana nada, karna shweda, badhiriya, karnastra, karnapak, pootikarna, karnagothaka, karnashotha, karnavidradhi, krimimkarna Knowledge of karna kandu, karna pratinaha, karnarsha, karnarbuda, karnapali rogas
Knowledge of Karna sandhana (Auroplasty), fundamentals, method and Vaikritpaham
Detailed study of Otalgia, ASOM, CSOM, Deafness, wax – etiology, pathology, clinical features, differential diagnosis, complications and their medical and surgical management
Knowledge of Otomycosis, Otosclerosis, Tinnitus, Vertigo, Foreign body in ear and Noise pollution.

IV Nasa Roga  
20 hrs
Detailed study of Rachana and kriyasharir of Nasa (Nose and paranasal sinuses) & Ghranendriya as per Ayurvedic and modern view, Examination of Nose.
Detailed study of Pratisyaya, Dushta prishyaya, Nasanaha, Kshavathu, Nasagata raktapitta Nasarsha.
Knowledge of Putinasa, Bhranshathu, Peenasa, Apeenasa, Nasarbuda, Nasashotha, Dipta, Nasa Sandhana.
Detailed study of Rhinitis, Epistaxis, Nasal Polyp, DNS -. Etiology, pathology, clinical features, differential diagnosis and medical and surgical management - Knowledge of Nasal trauma, foreign body in the nose, tumours of nose and para nasal sinuses

V Mukha Roga (Diseases of Oral Cavity)  
30 hrs
Detailed study of Rachana and kriyasharir of Mukha saptanga – oshtha, dantamoola, danta, jivha, talu, gal, galadi (Oral cavity ) as per Ayurvedic and modern view, Basic examination of saptanga.
Mukha and Danta Swasthya ancient and modern concepts
Detailed study of Etiology, Pathology, Clinical features, differential diagnosis and Treatment of Mukharoga (Diseases of oral cavity)
Oshtha Roga (Diseases of Lips)  
Detailed study of Etiology, pathology, classification, clinical features and management of diseases of Oshtha (Lips) - Oshtha prakopa, khandoshtha Knowledge of gandalaji, jalarbuda, kshataja oshthaprakopa
Knowledge of as per Ayurvedic and modern science
Danta Roga (Dental Diseases)
Detailed study of Etiology, pathology, classification, clinical features and management of diseases of Danta (Teeth) daalan, krimidanta, dantaharsha, danta shrkara, hanumoksha
Knowledge of karala, Bhanjanak, Kapalika, shav danta, danta bheda, danta chaal adhidanta.
Knowledge of Danta Utpatana, (Tooth extraction), Danta purana, Danta rakshana..
Knowledge of Dental Caries, Dental Tartar.

Dant Mula Gata Roga (Diseases of Periodontia)
Detailed study of Etiology, pathology, classification, clinical features and management of diseases of Dantamula (Periodontia) - Shitada, Dantaveshta, Upakush, danta nadi, danta vidradhi, adhimansa
Knowledge of dantapupputaka, Saushira, Mahasaushira, danta vaidarbha, paridara, vardhana.
Detailed study of Etiology, pathology, classification, clinical features and management of diseases of Gingivitis, Apical abscess, Periodontitis (Pyorrhoea).

Jihwa Gata Roga (Diseases of Tongue)
Detailed study of Etiology, pathology, classification, clinical features and management of diseases of jivha roga - jivha kantaka (vataja, pittaja and kaphaja)
Knowledge of Upajihva, Adhijihva, alasa.
Knowledge of Glossitis, Tongue Tie, Ranula, Benign and Malignant Tumors of tongue.

Talu Roga (Diseases of Palate)
Detailed study of Etiology, pathology, classification, clinical features and management of diseases of Talu (Palate) - Gala shundika, Talushosha, Talupaka
Knowledge of Talupupputa, Adhrusha, Kacchapa, Talvarbuda, Mamsasanghata,
Knowledge of Cleft palate, palatitis, uvulitis and tumours of the palate.

Kantha and Gala gata Roga (Diseases of Pharynx & Larynx)
Detailed study of Etiology, pathology, classification, clinical features and management of diseases of - Tundikeri, Kantha shaluka, Gilayu, Galaganda swrabhedha, galavidradhi.
Knowledge of Rohini, Galashotha, Kantharbuda, Kanthavidradhi, galarbuda Galaugham, Vrindam, Ekvavindam, Valaya, balasa, Shataghni, Swaraghna.
Detailed study of Etiology, pathology, classification, clinical features and management of - Pharyngitis, Laryngitis, Tonsillitis, Adenoiditis
Knowledge of foreign body in the throat, Carcinoma of Larynx, Pharynx, Diphtheria, diseases of salivary glands.

Sarvasara Mukha Roga (Generalised mucosal affections of the oral cavity)
Detailed study of Etiology, pathology, classification, clinical features and management of diseases of sarvasar, mukhapaka
Knowledge of urdhvaguda, putivaktrata, mukharbuda
Knowledge of Stomatitis.
VI Miscellaneous Diseases
National Programme for Prevention and Control of Deafness.
Prevention of malignancy of Oral cavity.
Dysphagia, Hoarseness of voice.

PRACTICAL

Content of Practical

Training in para-surgical procedures-
1) Kshara karma
2) Agnikarma
3) Raktamokshana
4) Training of ward procedures. Application of bandages, wound management
5) Training of minor procedures (ashtavidha)
6) Observation of surgical procedures in Shalakya

Clinical Training 04 Months (OPD, IPD OT and kriya kalpa)

Distribution of marks
1) Long Case 30 Marks
2) Short Case 20 Marks
3) Identification of instruments 20 Marks
quipments, medicines, etc
4) Viva voce
5) Daily Record (Case record) 20 Marks

Total 100 Marks

Reference Books:-
1. Shalakya Tantra Dr. Rama Nath Dwivedi
2. Shalakya Vigyan Dr. Ravindra Chandra Choudhary
3. Abhinava Netra Chikitsa Acharya Vishva Nath Dwivedi
4. Netra Chikitsa Vigyan Dr. Ravindra Chandra Choudhary
5. Netra Roga Chikitsa Dr. Munje
6. Netra Roga Vigyan Dr. Hans Raj
7. Parson’s Diseases of Eye
8. Diseases of ENT Log and Turner
9. Shalakya Tantra Shiv Nath Khanna
10. Atext book of ophthalmology in Ayurveda Dr. P.K. Shantha kumari
Useful portions of Charak, Sushrut, Vagbhata
### 4.5 Research methodology and Medical statistics

Total hours 50 (Part A-30 and Part B- 20)  
Total Marks 50 (Part A-30 and Part B- 20)  

Paper should be set up only from the 1-7 topics

<table>
<thead>
<tr>
<th>SYLLABUS TOPICS</th>
<th>SUBJECT</th>
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</table>
| 1 | Brief historical background of research and statistics in Ayurved and contemporary medical science  
   a. Historical aspects of research concepts  
   b. Evidences of researches in ayurvedic classics |
| 2 | Etymology, definitions and synonyms (Anveshana, Gaveshana, Prayeshana, Anusandhan and Shodha) of the word Research |
| 3 | Scope (Drug research), need, importance, utility for Research in Ayurved |
| 4 | Types of Research (familiarization of the terms)  
   a. Pure and Applied  
   b. Qualitative, Quantitative and Mixed  
   c. Observational and interventional |
| 5 | Research process (Importance of each steps in brief)  
   a. Selection of the topic  
   b. Review of the literature  
   c. Formulation of Hypothesis  
   d. Aims and Objectives  
   e. Materials and methods  
   f. Observations and results  
   g. Methods of communication of Research |
| 6 | Research tools – Role of the pramanas as research tools |
| 7 | The concept and importance of ethics in research |

Desirable syllabus topics only for sensitization and not for examination

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<thead>
<tr>
<th>SYLLABUS TOPICS</th>
<th>SUBJECT</th>
<th>HOURS</th>
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</table>
| 1 | **Drug research**  
   a. Preclinical Research  
   b. Identification  
   c. Standardization  
   d. Safety and efficacy  
   **Clinical Research**  
   a. Phases of clinical research (RCT) | 7 |

**Advanced Research** -(nice to know) no question from this part (meant for student’s self study)

Concepts of evidence based Medicine- 2 hour  
Question paper setting pattern –  
Objective 1×10=10  
Descriptive 4×3=12; 2×4=8
**Part B- Bio- Statistics**

Question Paper should be set up only from the 1-6 topics. Question paper should not contain mathematical calculations.

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<thead>
<tr>
<th>SYLLABUS TOPICS</th>
<th>SUBJECT</th>
<th>HOURS</th>
<th>MARKS</th>
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<tbody>
<tr>
<td>1</td>
<td>Etymology, definitions and scope of the Biostatistics</td>
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<td>Common statistical terms and notations</td>
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<td>4</td>
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<td>a. Population</td>
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<td>c. Data</td>
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<td>d. Variable</td>
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<td>e. Normal distribution</td>
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<td>3</td>
<td>Collection, Classification of the data and Presentation of data</td>
<td>4</td>
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<td>a. Tabular</td>
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<td>b. Graphical</td>
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<td>c. Diagrammatical</td>
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<td>4</td>
<td>Measures of location</td>
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<td></td>
<td>a. Average</td>
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<td>b. Percentile</td>
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<td><strong>Measures of Central Tendency</strong></td>
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<td>a. Arithmetic mean</td>
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<td>b. Median</td>
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<td>c. Mode</td>
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<td>5</td>
<td>Variability and its measurement</td>
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<td>a. Range</td>
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<td>b. Standard deviation</td>
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<td>c. Standard error</td>
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<td>6</td>
<td>Introduction to probability and test of significance</td>
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<td><strong>Total</strong></td>
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**Desirable syllabus topics only for sensitization and not for examination**

1) Parametric and non parametric tests – 2hours

**Advanced statistics - (nice to know) no question from this part (meant for student’s self study)**

1) Statistical softwares – 1 hours

Question paper setting pattern –

Objective $1 \times 8 = 8$

Descriptive $4 \times 2 = 8$; $2 \times 2 = 4$

**Reference books for Research methodology :**


Reference Books for statistics:

5. Interpretation and Uses of Medical Statistics by Leslie E Daly, Geoffrey J Bourke, James MC Gilvray.
6. Research methodology methods and statistical techniques- Santosh Gupta. Greenhouse SW.
11. Methods in Bio-statistics for Medical Students- BK Mahajan
12. Vaidyakeeya Sankhiki Shastra- Dr. S. S. Savrikar
REVISED ORDINANCE GOVERNING
B.A.M.S DEGREE
PROGRAMME

Notification
AIMS AND OBJECTS:

Ayurveda education should aim at producing graduates of profound scholarship having deep basis of Ayurveda with scientific knowledge in accordance with Ayurvedic fundamentals with extensive practical training who would be able and efficient teachers, research workers and kaya Chikitsaka (Physicians) and Shalyachikitsaka (Surgeons) fully competent to serve in the medical and health services of the country.
1. ELIGIBILITY

1.1 Qualifying Examination

A candidate seeking admission to first BAMS course:
Shall have passed two years Pre University examination conducted by Department of Pre-University Education, Karnataka State, with English as one of the subjects and Physics, Chemistry and Biology as optional subjects. The candidate shall have passed subjects of English, Physics, Chemistry and Biology individually also. Preference will be given to candidates knowing Sanskrit.**

OR

Shall have passed any other examination conducted by Boards/Councils/Intermediate Education established by State Governments/ Central Government and recognised as equivalent to two year Pre University examination by the Rajiv Gandhi University of Health Sciences/Association of Indian Universities (AIU), with English as one of the subjects and Physics, Chemistry and Biology as optional subjects and the candidate shall have passed subjects of English, Physics, Chemistry and Biology individually.

The candidates who have passed the B. Sc Part- I degree examination of any University or equivalent examination conducted by statutory Universities or Boards with Science subjects namely Physics, Chemistry, Biology or Botany & Zoology and secured not less than 50% of marks in the aggregate are eligible for admission to I BAMS Course, provided the candidate has passed the PUC examination with Physics, Chemistry, Biology, and English as one of the languages.

iv ) Candidates who have passed B. Sc degree examination of any University in India or recognised as equivalent thereto with any three (3) Science subjects with not less than 50% of marks in the aggregate are eligible for admission to BAMS Course provided they have passed in the deficient Science Zoology, and English as one of the languages at the Pre-University or B. Sc Part 1 level. However in the case of students belonging to SC / ST and Category –I, the minimum requirement in percentage of marks for admission to BAMS Course is relaxed by 10% marks.

1.2 Marks

The selection of students to medical colleges shall be based on merit provided that:
In case of admission on the basis of qualifying examination, a candidate for admission to BAMS course must have passed individually in the subjects of Physics, Chemistry, Biology and English and must have obtained a minimum of 50% marks taken together in Physics, Chemistry and Biology in the qualifying examination( 2nd PUC ). In respect of candidates belonging to Scheduled Castes, Scheduled Tribes or Other Backward Classes, the marks obtained in Physics, Chemistry and Biology taken together in qualifying examination be 40% instead of 50% as above.

In case of admission on the basis of competitive entrance examination, a candidate must
have passed individually in the subjects of Physics, Chemistry, Biology and English and must have obtained a minimum of 50% marks in Physics, Chemistry and Biology taken together at the qualifying examination (2nd PUC) and in addition must have come in the merit list prepared as a result of such competitive entrance examination by securing not less than 50% marks in Physics, Chemistry and Biology taken together in the competitive examination. In respect of candidates belonging to Scheduled Castes, Scheduled Tribes or Other Backward Classes the marks obtained in Physics, Chemistry and Biology taken together in qualifying examination and competitive entrance examination be 40% instead of 50% as stated above.

1.3 **Age**: The candidate should have completed 17 years on or before 31st day of December of the year of admission.

2. **DURATION OF THE COURSE**

   Every student shall undergo a period of certified study extending over 4½ academic years from the date of commencement of his study for the subject comprising the B.A.M.S.curriculum to the date of completion of the examination followed by one year compulsory rotating Internship. The 4 ½ years course has been divided into four phases plus internship.
   
   I  Professional – Twelve (12 )months .
   II Professional - Twelve (12 )months.
   III Professional - Twelve (12 )months.
   IV Professional - Eighteen (18)months
   Compulsory Internship- Twelve (12 ) months.

3. **DEGREE TO BE AWARDED**:  
   The candidate shall be awarded degree AYURVEDACHARYA (Bachelor of Ayurvedic Medicine and Surgery) after completion of prescribed courses of study extending over the prescribed period and passing the final examination and satisfactorily completion of six months/one year compulsory internship after the final examination.

4. **MEDIUM OF INSTRUCTION**:  
   English or Kannada.

5. **THE NUMBER OF STUDENTS TO BE ADMITTED**:  
   The admission should be made strictly in accordance with the student bed-ratio of 1:3 i.e. on the basis of three beds in the hospital attached with the college one student should be admitted every year. The minimum number of student to be admitted in an Ayurvedic College should be 20.

6. **ATTENDANCE**
   *Every candidate should have attendance not less than 75% of the total classes conducted in theory and practical separately* in each academic year calculated from the date of commencement of the term to the last working day as notified by the University in each of the subjects prescribed to be eligible to appear for the university examination subject to the condition that his / her progress and conduct are counted to be satisfactory by the Principal. The Principal should notify at the College the attendance details at the end of each term without fail under intimation to this University.

A candidate lacking in the prescribed attendance and progress in any subject(s) in theory or practical/clinical in the first appearance should not be permitted to appear for the examination in
that subject(s).

7. Internal Assessment

College level Internal assessment examinations are to be conducted without fail. 50% passing marks in the college level internal assessment examinations will be considered as eligibility for final (annual) examinations & marks obtained in internal assessment examinations will not be considered in the university marks card, however once in 6 months college level examinations should be conducted.

8.1 FIRST PROFESSIONAL EXAMINATION

I. The first professional examination shall be at the end of one academic year of first professional session. The first professional session will ordinarily start in July.

II. The first professional examination shall be held in the following subjects:

1. Padartha vijnana evam ayurveda ithihas.
2. Sanskrita
3. Kriya shareera (Physiology)
4. Rachana shareera (anatomy)
5. Moulika sidhanta evam ashtanga hridaya (sutrasthana)

111. A student failed in not more than 2 subjects shall be held eligible to keep the terms for the second professional course. However he/she will not be allowed to appear for second professional examination unless he/she passes in all the subjects of the first professional.

8.2 SECOND PROFESSIONAL EXAMINATION:

I. The second professional session shall start every year in the month of July following the completion of first professional examination. The second professional examination shall be ordinarily held and completed by the end of month of JUNE/JULY every year after completion of one year of second professional session.

II. The second professional examination shall be held in the following subjects:

1. Dravyaguna vijnana (Pharmacology and material medica)
2. Rasashastra- Bhaishajya kalpana (Pharmaceutical science)
3. Agadatantra and vyavahara ayurveda evam vidhi vaidyaka (Toxicology and medical jurisprudence)
4. Charaka- purvardha

111. A student failed in not more than two subjects shall be held eligible to keep the terms for the third professional examination, however he/she will not be allowed to appear for third professional examination unless he/she passes in all the subjects of second professional examination.

8.3 THIRD PROFESSIONAL EXAMINATION:-

i. The third professional session shall start every year in the month of July following completion of second professional examination. The third professional examination shall be ordinarily held and completed by the end of the month of
JUNE/JULY every year after completion of one year of third professional session.

ii. The third professional examination shall be held in the following subjects:
   1. Roganidana vikriti vijnana (pathology and microbiology)
   2. Charak samhita- uttarardh
   3. Swasthavritta and yoga (preventive and social medicine and yoga)
   4. Prasuti and striroga (gynaecology and obstetrics)
   5. Balaroga (paediatrics)

iii. A student failed in not more than two subjects shall be held eligible to keep the terms for the final professional examination, however he/she will not be allowed to appear for the final professional examination unless he/she passes in all the subjects of third professional examination.

8.4 FINAL PROFESSIONAL EXAMINATION :-

The final professional session will be of one and half year duration and shall start every year in the month of July following completion of third professional examination. The final professional examination shall be ordinarily held & completed by the end of month of DEC/JAN. Every year after completion of one and half year of final professional session.

ii) final professional examination shall comprise of the following subjects:

   1. Shalya tantra (general surgery)
   2. Shalakya tantra (diseases of head and neck including ophthalmology, ENT and dentistry)
   3. Kayachikitsa (internal medicine–including manas roga, rasayana & vajikarana)
   4. Panchakarma

9. COMPULSORY INTERNSHIP

   Duration of internship: 1 year

The student will join compulsory internship programme after passing the final professional examination. The internship programme will start after declaration of the result of final professional examination. The period of internship will be one year.

Internship programme and time distribution will be as follows:

1. The interns will receive orientation regarding programme details of internship programme along with the rules & regulations, in an orientation workshop, which will be organised during first three days of the beginning of the internship programme. A work book will be given to each intern. The intern will enter date wise details of the activities undertaken by him/her during his/her training.

2. Every intern will provisionally register himself with concerned state board/council and obtain a certificate to this effect before joining the internship programme.

3. Daily working hours of intern will be not less eight hours.
4. Normally one year internship programme will be divided into clinical training of six month in the ayurvedic hospital attached to the college and six month in PHC/CHC/Rural hospital/district hospital/civil hospital or any Govt. Hospital modern medicine but where there is no provision / permission of the state govt. for allowing the graduate of the ayurveda in the hospital / dispensary of modern medicine, the one year internship will be completed in the hospital of ayurved college.

A. Clinical training of six/twelve months as a case may be in ayurvedic hospital attached to the college will be conducted as follows.

<table>
<thead>
<tr>
<th>Departments</th>
<th>Distribution of six months</th>
<th>Distribution of twelve months</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. kayachikitsa</td>
<td>2 months</td>
<td>4 months</td>
</tr>
<tr>
<td>2. shalya</td>
<td>1 month</td>
<td>2 months</td>
</tr>
<tr>
<td>3. shalakya</td>
<td>1 month</td>
<td>2 months</td>
</tr>
<tr>
<td>4. prasuti &amp; stree roga</td>
<td>1 month</td>
<td>2 months</td>
</tr>
<tr>
<td>5. koumarya bhriya</td>
<td>15 days</td>
<td>1 month</td>
</tr>
<tr>
<td>6. panchakarma</td>
<td>15 days</td>
<td>1 month</td>
</tr>
</tbody>
</table>

B. Six month training of interns will be carried out with the object to orient and acquaint the intern with national health programme. The intern will have to join in one of the following institutes for undertaking such training.

(a) Primary health center
(b) Community health center/ district hospital
(c) Any hospital of modern medicine
(d) Any ayurveda hospital or dispensary.

All the above centers (a,b,c and d) will have to be recognised by the concerned university and concerned govt. Designated authority for taking such a training.

Detail guideline for training programme.

Guidelines for conducting the internship clinical training of 06/12 months in the ayurvedic hospital attached to the college.

The intern will undertake following activities in respective departments as shown below :-

1. **Kayachikitsa** duration :- 2 months / 4 months.
   i) All routine works such as case taking, investigations, diagnosis and management of common diseases by ayurvedic medicines.
   ii) Routine clinical pathological work i.e. Haemoglobin estimation, complete hemogram, urine analysis, microscopic examinations of blood parasites, sputum examinations stool examinations etc. Mutra evam mala pariksha by ayurvedic method interpretation of laboratory data and clinical findings and arriving at diagnosis.
   iii) Training in routine ward procedure and supervision of patients in respects of their diet, habits, and verification of medicine schedule.

2. **Panchakarma** – duration :- 15 days / 1 month
i) Panchakarma procedures and techniques regarding poorva karma, pradhana karma and paschat karma.

3. **Shalya Duration**: 1 month / 2 months
   Intern should be trained to acquaint with
   i) Diagnosis and management of common surgical disorders acco. To ayurvedic principles.
   ii) Management of certain surgical emergency such as fractures and dislocations acute abdomen etc.
   iii) Practical training aseptic and antiseptics techniques, sterilisation etc.
   iv) Intern should be involved in pre operative and post operative managements.
   v) Practical use of anaesthetic techniques and use of anaesthetics drugs.
   vi) Radiological procedure, clinical interpretation of x-ray, IVP, Barium meal, sonography, etc.
   vii) Surgical procedures and routine ward techniques such as
       i) Suturing of fresh injuries
       ii) Dressing of wounds, burns, ulcers etc
       iii) Incision of abscess
       iv) Excision of cyst
       v) Venesection etc.
       vi) Application of ksharasutra in ano-rectal diseases.

4. **Shalakya Duration** 1 month/ 2 months :
   Intern should be trained to acquaint with
   a) Diagnosis and management of common surgical disorders acco. To ayurvedic principles.
   b) Intern should be involved in pre operative and post operative managements.
   c) Surgical procedures in ear, nose, throat, dental problems, ophthalmic problems.
   d) Examinations of eye, ear, nose, throat and refractive errors etc with the supportive instruments in OPD.
   e) Procedure like anjana karma, nasya, rakta mokshana, karna poorana, shirodhara, putapaka, kawal, gandush etc at OPD level.

5. **Prasuti and streeroga** Duration 1 month/2 month
   Intern should be trained to acquaint with
   a) Antenatal and postnatal problems and their remedies, Antenatal and postnatal care.
   b) Management of normal and abnormal labours
   c) Minor and major obstetric surgical procedures etc

6. **Bala roga** Duration 15 days/1 month
   Intern should be trained to acquaint with
   Antenatal and postnatal problems and their remedies, Antenatal and postnatal care, also by ayurvedic principles and medicines.
   a) Antenatal and postnatal emergencies.
b) Care of new born child along with immunisation programme.

c) Important peadiatric problems and their ayurvedic management.

B. PHC/RURAL HOSPITAL/DISTRICT HOSPITAL/CIVIL HOSPITAL/ OR ANY GOVERNMENT HOSPITAL OF MODERN MEDICINE.

Guideliness for conducting six months internship trainig in primary health centre,community health centre/district hospital; Any hospital of modern medicine any ayurveda hospital or dispensary.
Intern should be trained to acquaint with
i. Routine of the PHC and maintainance of records.

ii. They should be aquainted with the routine working of the medical/ non-medical staff of PHC and be always in contact with the staff in this period.

iii. They should be familiar with the work of maintaining the register e.g. daily patient register, family planning register, surgical register and take active participation in the different government health schemes/ programmes

iv. They should participate actively in different national health programmes of the government of the state / district.

C. Casuality Section of any recognised hospital of modern medicine.
Identification of casuality and trauma cases and their first aid treatment. Also procedure for referring such cases to the identified hospitals.

D. Rural Ayurvedic dispensary/hospital
Diseases more prevalent in rural and remote areas and their management. Teaching of health care methods to the rural population and also various immunization programmes.

10. Assessment
After completing the assignment in various sections, they have to obtain a certificate from the head of the section in respect of their devoted work in the section concerned and finally submitted to the principal/ head of the institute so that completion of successful internship can be granted.

11. Migration of Internship: Migration of internship will be only with the consent of both the college and university, in case of migration is between two different universities and colleges. In case migration is only college to college but university is not change, only the consent of both the colleges will be required. The migration will be accepted by the university on the production of the character certificate issued by the institute and application forwarded by the college and university with NOC as case may be

12. Examination:

i. Theory examination shall have minimum 20% short answer questions having maximum mark upto 40% and minimum 4 questions for long explainatory answers having maximum marks upto 60%. These questions shall cover entire syllabus of the subject.

ii. Candidate obtaining 75% marks in the subject shall be avoided distinction in the subject.
iii. The minimum marks required for passing the examination shall be 50% in theory and practical separately in each subject.

iv. The supplimentary examination will be held within 6 months of regular examination and failed students shall be eligible to appear in its supplimentary examination as the case may be.

v. Minimum 75% attendance of the student in each subject separately in theory and practical shall be essential for appearing in the examination. In this regard a class attendance card shall be maintained for each student for different subjects. The principal shall arrange to obtain the signature of the students, teachers at the end of each course of lectures and practical instructions and send the cards to each head of the department for the final completion before the commencement of each examination.

vi. In case student fails to appear in regular examination for cognitive reason, he or she will appear in supplimentary examination as regular students. In such cases his/ her non appearance in regular examination will not be treated as an attempt. Such students after passing examination will join the studies with regular students and appear for next professional examination after completion the required period of the study.

vii. The following facts may be taken into consideration in determining classwork in the subject :-

i. Regularity in attendance

ii. Periodical tests

iii. Practical copy

MIGRATION

The students may be allowed to take the migration to continue his/her study to another college after passing the first year examination. Failed students transfer and mid-term migration will not be allowed. For migration, the students shall have to obtain the mutual consent of both colleges and universities and will be against the vacant seat after obtaining NOC from CCIM.

13.1 NUMBER OF PAPERS AND MARKS FOR THEORY/ PRACTICAL:

<table>
<thead>
<tr>
<th>Name of the</th>
<th>Number of hours of</th>
<th>Details of maximum mark</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
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<th>teaching</th>
<th></th>
<th></th>
<th>Number of papers</th>
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<td></td>
<td>Theory</td>
<td>Practical</td>
<td>Total</td>
<td></td>
<td>Theory</td>
<td>Practical</td>
<td>Total</td>
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<tr>
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<td></td>
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<td></td>
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<td></td>
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<td>1.padartha vigyana evam ayurveda ka Itihasa</td>
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<td>200</td>
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<td>one</td>
<td>100</td>
<td>-</td>
<td>100</td>
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<td>3.kriya shareera</td>
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<td>325</td>
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<td>300</td>
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<td>100</td>
<td>300</td>
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<td>5.moulika siddantha evam astanga hridaya(sutra stana)</td>
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<td>-</td>
<td>150</td>
<td>one</td>
<td>100</td>
<td>-</td>
<td>100</td>
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<tr>
<td><strong>2(^{nd}) professional</strong></td>
<td></td>
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</tr>
<tr>
<td>1. Dravyaguna vigyana</td>
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<td>200</td>
<td>375</td>
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<td>200</td>
<td>200</td>
<td>400</td>
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<td>2.agada tantra, vyavahara ayurveda evam vidhi vaidyaka</td>
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<td>50</td>
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<td>3.rasa shastra evam bhaishajya kalpana part-1</td>
<td>175</td>
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<td>375</td>
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<td>400</td>
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<td>4.charaka samhita (purvardh)</td>
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<td>One</td>
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<td>-</td>
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<td>3rd professional</td>
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<td>Two(01-pathology 01-ayurveda)</td>
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</tr>
<tr>
<td>1. Roga vigyana evam vikriti vigyana</td>
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<td>100</td>
<td>250</td>
<td>Two</td>
<td>200</td>
<td>100</td>
<td>300</td>
</tr>
<tr>
<td>2. Swastha vritta and yoga</td>
<td>150</td>
<td>100</td>
<td>250</td>
<td>Two</td>
<td>200</td>
<td>100</td>
<td>300</td>
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<td>3. Prasoti tantra and stri roga</td>
<td>175</td>
<td>100</td>
<td>275</td>
<td>Two</td>
<td>200</td>
<td>100</td>
<td>300</td>
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<td>4. Bala roga</td>
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<td>150</td>
</tr>
<tr>
<td>5. Charaka samhita(uttar ardha)</td>
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<td>-</td>
<td>150</td>
<td>One</td>
<td>100</td>
<td>-</td>
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<table>
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</thead>
<tbody>
<tr>
<td>1. Kaya chikitsa</td>
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<td>2. panchakarma</td>
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<td>300</td>
<td>One</td>
<td>100</td>
<td>50</td>
<td>150</td>
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<td>3. shalya tantra</td>
<td>200</td>
<td>150</td>
<td>350</td>
<td>Two</td>
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<td>300</td>
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<tr>
<td>4. shalakya tantra</td>
<td>200</td>
<td>150</td>
<td>350</td>
<td>Two</td>
<td>200</td>
<td>100</td>
<td>300</td>
</tr>
<tr>
<td>5. research methodology &amp; medical statistics</td>
<td>50</td>
<td>-</td>
<td>50</td>
<td>One</td>
<td>50</td>
<td>-</td>
<td>50</td>
</tr>
</tbody>
</table>

**NOTE:** the period of theory and practice shall not be less than 60 minutes(one hour). The duration of the practical of clinical subjects and Rachana Sharira (Dissection) shall be of atleast 120 minutes (2 hours).

13.2 clinical training of students will start from third year onwards.

13.3 The clinical training in the hospital attached with college to the students shall be as follows:-

i. **kaya chikitsa** (indoor and outdoor): 18 months
   a) kayachikitsa( samanya) 06 months
   b) manasroga 03 months
   c) rasayana & vajikarana 03 months
   d) panchakarma 03 months
   e) rog vigyana vikriti vigyana 03 months

ii. **shalya** ( indoor and outdoor) 09 months
   a) shalya ( samanya) 03 months(atleast one month in OT)
   b) shalya (kshar & anushastra karma) 03 months (atleast one month in OT)
   c) ksharasutra 02 months
d) anaesthesia  15 days  
e) radiology  15 days  

iii. **shalakya tantra** (indoor and outdoor)  04 months( atleast one month in OT)  
iv. **prasuti tantra evum stree roga**  03 months(outdoor & indoor)  
v. **kaumara bhritya** (outdoor and indoor)  01 month  
vi. **Atyayika ( casuality)**  02 months

14. **Qualifications & experience for teaching staff for UG teachers:**

   (applicable for direct recruitment but age will be relaxed in case of promotion)

   i. **essential:**
   
a) a degree in ayurveda from a university established by law or a statutory board / faculty / examining body of Indian medicine or its equivalent as recognised under Indian medicine central council act, 1970.

b) A post graduate qualification in the subject / speciality concerned included in the schedule to Indian medicine central council act, 1970.

ii. **Experience:**

   a) **for the post of professor:**  
   total teaching experience of ten years in concerned subject is necessary out of which there should be five years teaching experience as reader / associate professor in concerned subject.

b) **For the post of associate professor (reader):**  
   Teaching experience of five years in concerned subject.( reader will be treated as associate professor).

c) **For the post of asst. Professor ( lecturer):** (age not exceeding 40 years).  
   No teaching experience is required. Lecturer will be treated as asst. Professor.

   d) **Qualification for the post of head of the institution (principal/ dean/director):**
   The qualification and experience prescribed for the post of professor shall be essential for these posts.

   **Note:**- in absence of the candidate of post-graduate qualification in concern subject the candidate of the following subjects as mentioned against them shall be eligible for the post of lecturer/asst.professor:-

<table>
<thead>
<tr>
<th>Speciality required</th>
<th>Name of the allied subject</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.svasta vritta</td>
<td>1.Kayachikitsa</td>
</tr>
<tr>
<td>2.agada tantra</td>
<td>2.Drvyaguna/Rasashastra</td>
</tr>
<tr>
<td>3.roga vignana</td>
<td>3.Kayachikitsa</td>
</tr>
<tr>
<td>4.rachana shareera</td>
<td>4.Shalya</td>
</tr>
<tr>
<td>5.Kriya shareera</td>
<td>5.Samhita Siddanta</td>
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<tr>
<td>Subject</td>
<td>Subject</td>
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<td>------------------</td>
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</tr>
<tr>
<td>7. Panchakarma</td>
<td>7. Kayachikitsa</td>
</tr>
<tr>
<td>8. Balaroga</td>
<td>8. Prasuti and Striroga/Kayachikitsa</td>
</tr>
<tr>
<td>10. Shalya</td>
<td>10. Nischetana evam ksha-kirana</td>
</tr>
</tbody>
</table>

a. The above provision of allied subject will be allowed for five years.

b. The teacher(s) who had been considered eligible in the past on the basis of previous regulations shall not be considered ineligible on the basis of amendment.

**15. Appointment of Examiner in Ayurveda:** No person other than regular/Retired teacher with minimum eight years teaching experience in the concerned subject shall be considered eligible for an examiner.